GAMING IN THE *Obscure*

HIDDEN GEMS,
FAILED HOPES AND
BURIED MISTAKES

JOHNNY BLANCHARD

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Contents

Introduction 7

Second Generation 8

MB / GEC Vectrex 10

Third Generation 18

Amstrad GX4000 20

Commodore 64 Games System 28

Sega SG-1000 36

Sharp Twin Famicom 44

Fourth Generation 52

NEC PC Engine GT 54

NEC PC Engine LT 62

Sharp X68000 70

JVC X'Eye / Wondermega 78

Fifth Generation 86

Sega Nomad 88

Bandai Playdia 96

FM Towns Marty 104

Nintendo Virtual Boy 112

NEC PC-FX 120

Apple Bandai Pippin 128

Nintendo 64DD 136

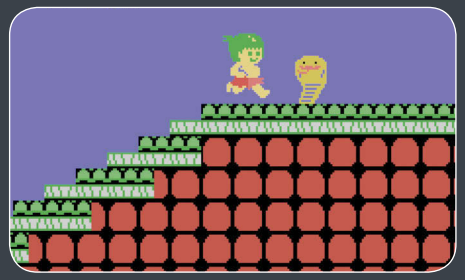
Bandai Wonderswan 144

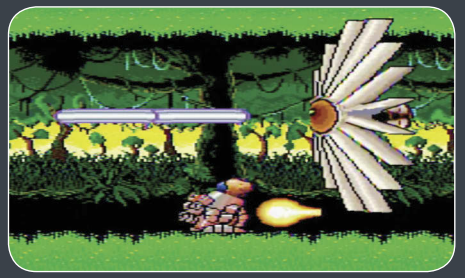
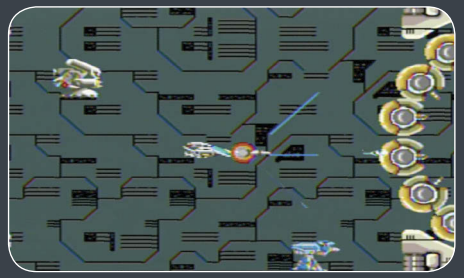
Casio Loopy 152

Afterword 160

Special Thanks 161

Super Backers 162



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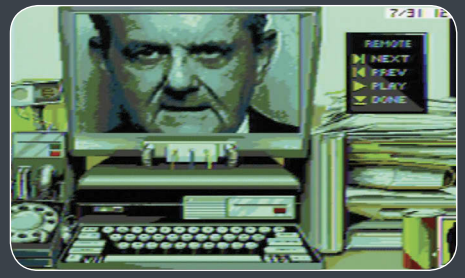
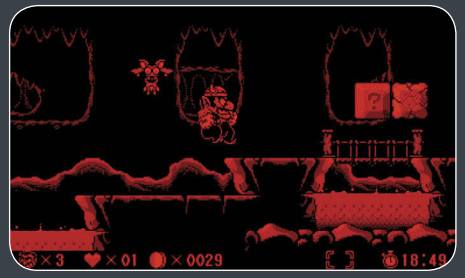
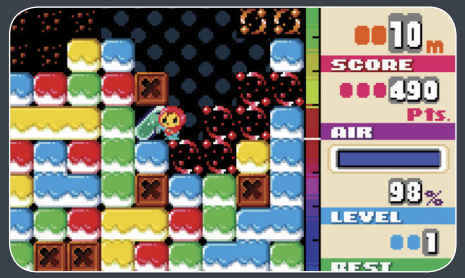






Introduction

THE video game market has, after a bit of a shaky start, grown to be an incredibly profitable entertainment sector. From a start which saw a mix of purpose-built companies create an exciting new toy, to the modern age, where the industry is effectively controlled by giant corporations, it's been a game of favourites, with the fate of companies dependent on the whims of consumers and software publishers.

The grinding wheel of choice has seen few successes in reality, with Nintendo being the only pre-3rd generation console manufacturer to survive.

What of the companies, consoles and technologies that didn't survive? There are consoles out there that didn't get a start, didn't get enough sales, or didn't actually work. Many are unknown and even if they were noticed at the time, they've faded into obscurity.

This is especially true for fans outside of Japan. Japan jumped on the gaming market early and they already had a strong engineering base to build on. Most of the consoles in this book are machines that simply didn't make it to other countries.

My collection started when I found out about the PC Engine, or rather the TurboGrafx as it was called in Europe and North America. I'd never seen or heard of this machine. I was a Sega boy, with a switch to Nintendo when the N64 came out. There was a third option! Who knew?

Many years later, after reading about the PC Engine, I knew I had to own one. I paid (a fair price, as it turned out) for a boxed TurboGrafx. I was instantly enamoured. I love shoot-em-ups and as any fan of the PC Engine will tell you, that's the system's strong point. And just like that, the itch started. I had to discover all the consoles I'd missed.

And seven years later, with a LOT of money spent overseas (mostly in Japan), I feel I've got my collection to the point where I want to share it.

This catalogue of consoles is by no means exhaustive. For a start, I've limited the list to machines that I actually own. I didn't include them all, mind (I need something for a second edition, after all). Then, I further excluded various consoles with built-in games as well as special variants of other machines. I do, however, include a few machines that are relatively well-known, and therefore not entirely obscure, but they are not easily accessible unless you're a collector, and I think their inclusion adds to the story.

Think of this as a curated list, a glimpse into the obscure with consoles chosen solely at my whim. Hopefully it'll get these machines the attention they deserve.

Johnny Blanchard

Second *Generation*

Fairchild Channel F

Atari 2600

Bally Astrocade

Magnavox Odyssey

MB Microvision

Mattel Intellivision

Entex Select-A-Game

Emerson Arcadia 2001

Coleco ColecoVision

Atari 5200

GCE / MB Vectrex

THIS is really the beginning of the console industry. The previous generation had largely consisted of machines with built-in games, mostly variants on *Pong*, a game that Atari had used to create the modern idea of an arcade.

With the 2nd generation, games were made removable using cartridge technology popularised by Jerry Lawson as part of the Fairchild Channel F console.

This created an industry. Before, game developers worked for the company that created the machine, and the games were pre-selected and pre-installed. Consumers bought a machine and that was that, no extra games.

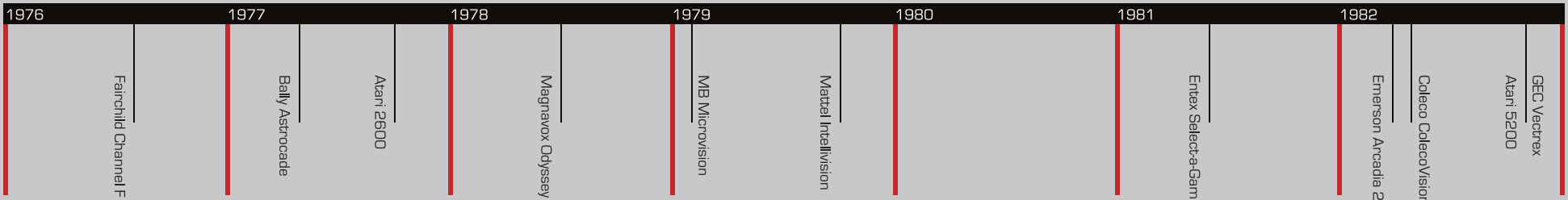
The move to cartridges not only created an after-sales market, where consumers would buy games, but it also created the idea of game developers and publishers—companies that make and sell games independently from console manufacturers.

Atari decided to take its dominance of the arcade into the home and created the 2600. And while it was the most popular machine of this generation, it wasn't without competition.

The toy giant, Mattel, released their Intellivision console, which was technically superior to the 2600 and they used their international connections to secure some key exclusives.

Coleco released the ColecoVision. It was a powerful system that had a number of add-on devices to increase its features. The most important of these was Extension 1, which added the ability to play Atari 2600 games, giving the ColecoVision access to an existing library of games.

Second Generation Timeline



1 MB / GEC Vectrex

THE Vectrex is a stunning piece of development, but demonstrating why that's the case is hard without physically showcasing the machine. Other consoles at the time used raster-style rendering, for compatibility with everyday televisions, but the Vectrex renders its graphics with vectors.

Now, the physical difference between a raster and vector display is unremarkable, but the visual distinction is quite astonishing. Unfortunately, this difference does not come across in pictures or video particularly well. It really needs to be seen first-hand.

Drawing graphics with lines rather than pixels looks great, but it does have drawbacks. Consequently, the Vectrex didn't have as many of the platform-style games that were popular on the other consoles. Some developers, however, made clever use of the vector drawing to create graphics that looked like traditional raster designs.

Smith Engineering originally designed the Vectrex after John Ross, an employee, saw a demonstration of a simple vector display. Realising they lacked the manufacturing capability or market strength to sell the console, they licensed the technology to GEC, MB and Bandai. These companies were responsible for selling the Vectrex in North America, Europe and Japan respectively.

While the 9" portrait display is black and white, most games have colour overlays to add highlights to the screen.

The Vectrex shipped with a built-in *Asteroids* clone called *Mine Storm*. The game starts if no cartridges are present. *Mine Storm 2* was released as a standalone cartridge. It's essentially just a bug-fixed version of the original. The built-in copy of the game crashes when a player reaches *Level 13*, forcing a reset.

Not only was the game available to buy, but GCE sent a free copy to any customer who complained about the bug.

Both *Mine Storm* and *Mine Storm 2* have 3D versions that require a rare 3D Imager unit.

Manufacturer: ***Western Tech***

Country: ***USA***

Release Date: ***November 1982***

Discontinued: ***1984***

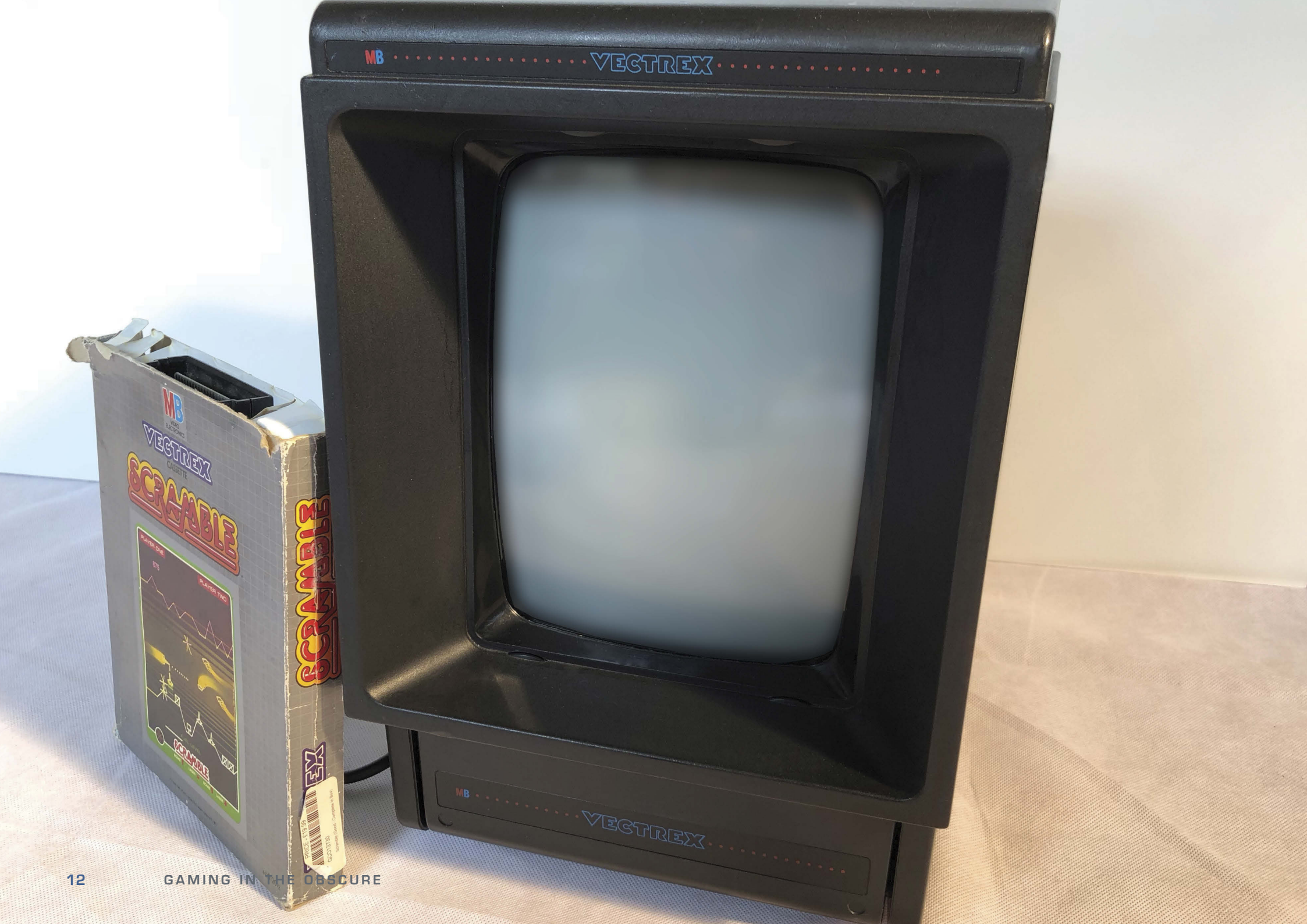
Total Sales: ***Unknown***

Launch Price: ***$200***

The Vectrex has undergone a price rise recently, as many retro consoles do. A few years ago you could buy the machines for as low as £90 unboxed, but now they tend to sell for between £200 and £600 depending on condition and whether the box is included.

Likewise, the game prices vary notably (anywhere from £8 to £80) because they all came with a screen overlay, which if included with the game's box, significantly inflates the cost. Moreover, many games are marked as 'rare', despite the fact that there is no noticeable difference in production numbers for any of the games.

If you want to save money, it's possible to get reproduction overlays made. Or you could even make your own.


MB
VECTREX
VECTREX
SCRAMBLE
SCRAMBLE
MB
VECTREX

VECTREX
FUEL LEVEL
SCRAMBLE
BOMB
LASER
VECTREX
SCRAMBLE
MB
VECTREX
1
2
3
4
MB

Scramble

Western Technologies 1982

RipOff

Cinematronics 1982

MineStorm

Western Technologies 1982

Pole Position

GCE 1983

Third *Generation*

Sega SG-1000

Nintendo Famicom / NES

Casio PV-1000

Nichibutsu My Vision

Philips Videopac G7400

Sega Mark III / Master System

Atari 7800

Atari XEGS

Action Max

Commodore 64 Games System

Amstrad GX4000

Sharp Twin Famicom

THE 2nd generation had established the console manufacturer / game publisher relationship. With the games crash, a lot of publishers went bankrupt, but the surviving ones now had their pick of developer talent and a library of obtained game ideas.

In Japan, a region that had remained largely unaffected by the crash, Nintendo prepared to release their first cartridge-based system, leveraging the skills they had acquired with the TV games they sold alongside their other toys.

They had worked out what had gone wrong in North America. Too many companies were allowed to release too many games, saturating the market with low-quality products. As a result, the main manufacturers (Atari, Coleco and Mattel) retained a massive overstock of games that weren't selling.

Nintendo knew they had to avoid this issue if they were going to escape the same fate, so they introduced stringent licensing rules. They seized the exclusive right to create cartridges, restricted publisher game releases and performed strict quality tests on these games.

The publishers did not like agreeing to these conditions, but it did not take long before Nintendo was the only game in town. Realising that competition would arrive, they also forced publishers to sign exclusivity deals.

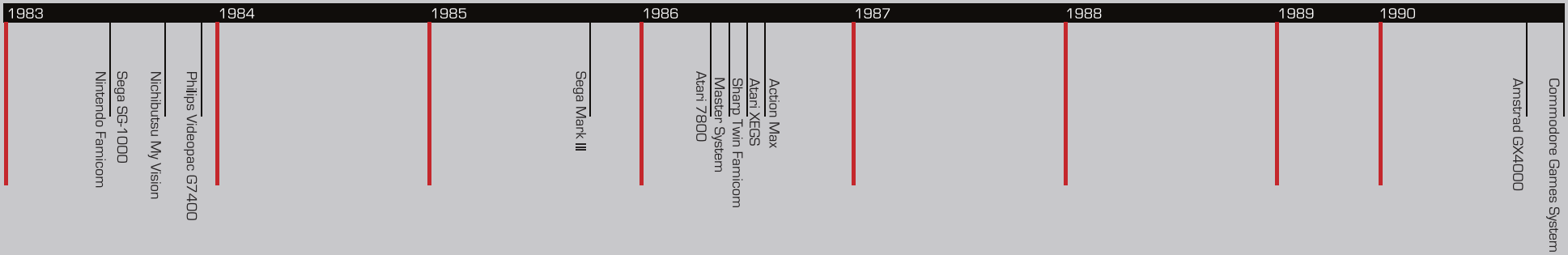
After a successful launch in Japan, they looked towards North America, a harder market. The toy stores and large electronics chains had been hit hard by the games crash and did not want to sustain another loss. The well had been poisoned. Realising this, Nintendo turned to their toy expertise to fix the problem. They called their product the Nintendo Entertainment System. Nowhere in the packaging was *console* ever mentioned.

Cementing the idea that this was an advanced toy and not a games console, they created a bundle that included a friendly helper robot called Rob. The scheme worked and Nintendo birthed a new gaming revolution.

It was so successful that when Sega attempted to enter the market with their, technically, more powerful Master System, they found it hard to compete. Shops didn't want to stock the console and developers couldn't make games for it.

The situation was different in Europe. Europe hadn't had the same love affair with the 2nd generation consoles. Home computers like the Sinclair Spectrum, Commodore 64 and Amstrad CPC were far more commonplace and these weren't affected by the games crash. Because of this, the fight between Sega and Nintendo was far more even, and Nintendo wasn't able to leverage exclusivity contracts as effectively as in North America and Japan.

Third Generation Timeline



2 Amstrad GX4000

AFTER acquiring Sinclair, Amstrad was in the position of owning two of the top-selling computers in Europe. The Spectrum was hugely popular in both the UK and Spain and the CPC was popular in France.

Unfortunately, Amstrad had no impetus to release more powerful machines. So, when the new influx of Japanese consoles started to gain traction in Europe, they were hurt worse than Commodore, who at least had a 16-bit offering in the form of the Amiga.

Amstrad decided to tackle the problem head-on, albeit in their usual cost-effective manner. Engineers took the existing CPC+ platform, which offered enhanced graphics over the normal CPC line, stuck it into a futuristic console-style casing and gave it the equally futuristic sounding GX4000 name.

This might have worked. The GX4000 competes well against the NES and Master System. If only it had been released to compete with them. Instead it was released straight into the path of the incoming 16-bit consoles, against which it had no chance.

The writing was on the wall almost immediately and few developers signed up to make games. To compound that pain, Amstrad hadn't invested enough in cartridge manufacturing, so the games that were made took far too long to come to market.

In a matter of weeks the price was reduced. Issues with the power supply meant that Amstrad experienced high returns. By July the next year, the price had dropped to £29 and few developers remained on board.

The GX4000 is one of the best examples of a missed opportunity. If Amstrad had managed to get it out just a year earlier, it could have been a real 2nd generation contender. We're only just finding out how powerful it really is with homebrew developers starting to push it.

Maybe one of the most unfortunate stories to come out of Amstrad is the rumour that originally the engineers were pushing a 16-bit version of the GX4000. It's not known how much truth there is in that or how far it got down the development path, but it could have made the market a very different place if it had happened.

Manufacturer: ***Amstrad***

Country: ***United Kingdom***

Release Date: ***September 1990***

Discontinued: ***1991***

Total Sales: ***15,000***

Launch Price: ***£99***

The GX4000 is relatively easy to get in Europe. Many countries have a robust second-hand selection, with occasional new-old stock turning up. Traditional auctions can be a good source too.

The games can be pricey, but you can be lucky and get some cheap. The GX4000 uses the same cartridges as the CPC+ and cartridges that are not branded as GX4000 usually go for less.

The console is pretty robust with one major flaw. The PSU has a tendency to blow up the voltage regulator (or if you're especially unlucky, other components) when plugged in or unplugged while powered. It is recommended that you do not use the original PSU and instead replace it with an alternative.

AMSTRAD
AMSTRAD
1
2

AMSTRAD

Burnin' Rubber

Amstrad 1991

Robocop 2

Ocean 1992

Pang

Ocean 1991

Navy Seals

Ocean 1992

3 Commodore 64 Games System

AMSTRAD wasn't the only home computer company that tried to shift into the console world. Commodore was the other popular computer company in Europe, being a firm favourite in Germany especially. They also had the distinct advantage of having a 16-bit platform in the Commodore Amiga.

They would obviously use their best available technology to make their own console, right? Not so. As it turned out, their first attempt (of three) to break into the market was to take their ageing C64 8-bit system, remove the keyboard, migrate the cartridge port from the back to the top, and slap 'Games System' to the end of the name.

Want to know how true this is? Open up the C64GS and you'll see a full-blown Commodore 64 motherboard, including the ports for Tape Players and Disk Drives.

When the GS was released, Commodore effectively looked at the cartridges that were already available on the C64, found the ones that didn't need keyboard input and re-released them with a C64GS compatible label.

The result was a lot of quick and dirty ports of differing quality. Issues ranged from Play Tape prompts briefly popping up, all the way to cartridge cases needing to be manually cut to fit properly before they could be shipped.

The total lack of effort is never more apparent than when you consider LJN's re-release of *Terminator II*. The game is completely playable without a keyboard, making it perfect for the job. LJN, however, decided to re-release a version that also bundled two applications. The menu prompt requires a keyboard to choose an option, which renders it completely unusable on the GS despite claiming compatibility.

Within weeks of being released, Commodore had started to repurpose existing stock to make Commodore 64s.

I feel like I need to mention at least one positive, so I will say that the bundled joystick, made by Cheetah, is actually quite nice.

Manufacturer: ***Commodore***

Country: ***USA***

Release Date: ***December 1990***

Discontinued: ***May 1991***

Total Sales: ***< 10,000***

Launch Price: ***£99***

The Commodore 64 Games System is incredibly hard to collect. Commodore re-used the parts early on in its lifetime, so not many were released to the market. Prices start at around £300 and can go anywhere up to £1000 for a boxed model.

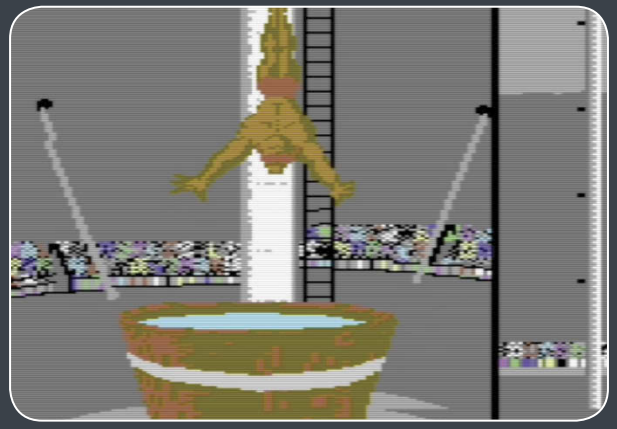
Honestly, unless you really want to own it for its rarity you should just buy a normal Commodore 64. It can use the same cartridges and those are much more reasonably priced.

C64
GAMES
SYSTEM

C64
GAMES
SYSTEM

Fiendish Freddies

Mindscape 1990



Double Dragon

Ocean 1992

Miner 2049'er

Big Five Software 1982

Defender

Atarisoft 1983

4 Sega SG-1000

MOST people only really know Sega from their more popular consoles, like the Master System. But in Japan, the Master System was originally known as the SG-1000 MK III, their third attempt to break into the console market.

In fact, Sega's first console, the SG-1000, was released in Japan in the same month as Nintendo's Famicom.

Sega's main business in the early 1980s was in the arcades. But a general decline in arcade attendance had started to have a negative impact. Then-president of Sega Enterprises, Hayao Nakayama, suggested that they leverage their knowledge of arcade hardware to build and release their own home system.

At that time in Japan, there were numerous smaller companies with machines on the market, but precious few that could be considered market leaders.

The SG-1000 was released in July 1983 to fairly poor sales. The market conditions that had tempted Sega had changed overnight. Nintendo released the Famicom and they owned titles that everyone knew. *Donkey Kong* alone was enough to make everyone want one. In contrast, the games released with the SG-1000, *Borderline, Safari Hunting* and *NSub* (conversions from Sega's own VIC arcade board) were mostly unknown.

This could have been it for Sega. The SG-1000 was a failure, and Sega was purchased by CSK Corporation. Imagine if Sega's console business had ended here. But CSK was fully behind the idea of a home console and brokered a deal with Grandstand Leisure to sell a rebadged version in New Zealand, and a deal with John Sands Electronics to sell it in Australia. Sales picked up partly due to these new deals and partly due to the fact that Sega had managed to release twenty-one games to Nintendo's nine, but mostly the sales were strong because of a recall of the Famicom due to a faulty circuit.

As a result, the SG-1000 sold over 160,000 units during 1983, blasting past the predicted 50,000 units. In 1984, Sega released the Mark II. It was mostly the same but had a redesigned console, some hardware tweaks to improve costs and removable controllers.

Another interesting point is that, because each model is an improved version of the previous one, the Master System Model 1 can play all games released for the SG-1000.

The final version of the SG-1000 was the Mark III, also known as the Master System.

Manufacturer: ***Sega***

Country: ***Japan***

Release Date: ***July 1983***

Discontinued: ***October 1985***

Total Sales: ***approx 180,000***

Launch Price: ***¥15,000***

It's a hard system to get outside of Japan. If you just want to play the games, it's easier to get a Master System Model 1 (if you don't care about the Sega Card games, you can buy a Model 2).

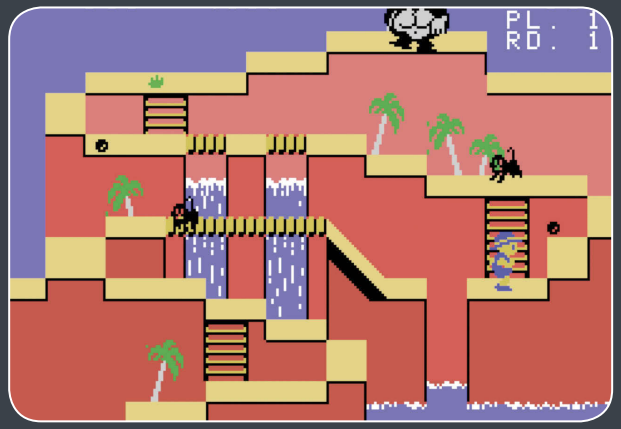
The Mark II is the easiest to find. They occasionally show up on eBay, but using an auction service to get one from a Japanese auction is certainly easier and cheaper.

SEGA
SG-1000 II
Computer Video Game
A fun-packed console designed for simple operation. This computer video game with its distinct images allows you to enjoy the maximum in playing satisfaction. Its colorful game play is sure to test your skills, sharpen your reflexes and greatly enlarge your imagination.
ROM CARTRIDGE
SG-1000 II

SEGA
SG-1000 II
Computer Video Game
A fun-packed console designed for simple operation. This computer video game with its distinct images allows you to enjoy the maximum in playing satisfaction. Its colorful game play is sure to test your skills, sharpen your reflexes and greatly enlarge your imagination.
ROM CARTRIDGE
pause
power on
Computer Video Game
SG-1000 II

Congo Bongo

Sega 1983



Monaco GP

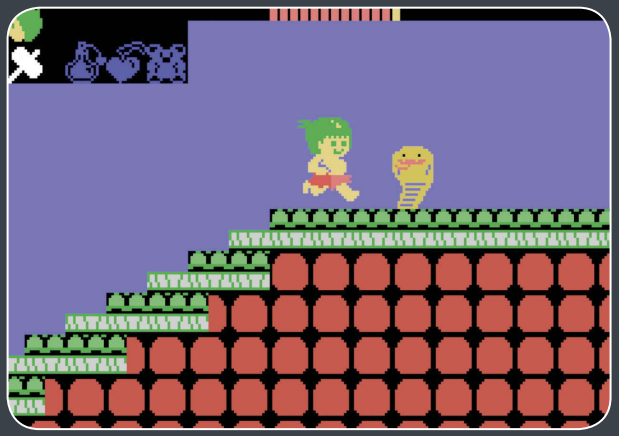
Sega 1983

Sega Galaga

Sega 1983

Wonderboy

Sega 1986



5 Sharp Twin Famicom

THE Nintendo Famicom was a huge success and was largely responsible for breathing new life into the console market. But it used cartridges, which were expensive and time-consuming to produce.

Nintendo explored alternative methods for loading games and ended up re-using a 2.8" system from Mitsumi with the help of Sharp.

As part of this agreement, Sharp would make the disk systems for the Famicom and they were also granted a license to create a compatible system. As a result, Sharp decided to make a hybrid system, the Sharp Twin Famicom, which included the Famicom and its cartridge port together with an internal disk drive.

Sharp released two models of the Twin. Each version has two colour variations: red with black highlights and black with red highlights for the first release, and black with green highlights and red with beige highlights for the second.

The two models are effectively the same. The second model, called the Twin Famicom Turbo, features a redesigned case and, as the name implies, turbo switches on the joy pads.

The Twin also makes use of composite connectors instead of the RF adaptor that the Famicom used at the time.

The standard Famicom Disk System is a large unit that sits underneath the Famicom with a wired cartridge that needs to be inserted into the cartridge slot. This cartridge contains the disk software and a small amount of cache memory.

In contrast, the cartridge is internal on the Twin. A switch on the console allows the user to choose between cartridge and disk. If the user chooses *disk*, the driver cartridge is electronically inserted.

It's possible to connect a Famicom to the Twin Famicom, so it can be used as a Disk Drive.

Manufacturer: ***Sharp***

Country: ***Japan***

Release Date: ***July 1986***

Discontinued: ***August 1989***

Total Sales: ***Unknown***

Launch Price: ***¥30,000***

The Twin Famicom can be hard to get outside of Japan, but it does occasionally turn up on eBay and some retro stores. In Japan, it's easy to buy and can be affordable. If you're interested in Famicom Disk System games, then this is probably the best route to go.

Common issues are the same as with most disk-based systems. The read heads usually need to be cleaned, transport mechanisms and cogs need to be greased and the rubber belt will probably need to be replaced.

The drive mechanism is actually pretty reliable and it's compatible with the Famicom Disk System, so getting a replacement is possible.

twinFAMICOM
SHARP
TWIN FAMICOM AN-505
ディスク
カセット/ディスク切換
カセット取出し
ディスク取出し
ディスク作動中
作動ランプ点灯中は
取出しボタンを押さ
ないでください
リセット
電源(■切 ■入)

カセット取出し
ディスク取出し
ディスク作動中
作動ランプ点灯中は
取出しボタンを押さ
ないでください
リセット
電源(切

Vs. Excitebike

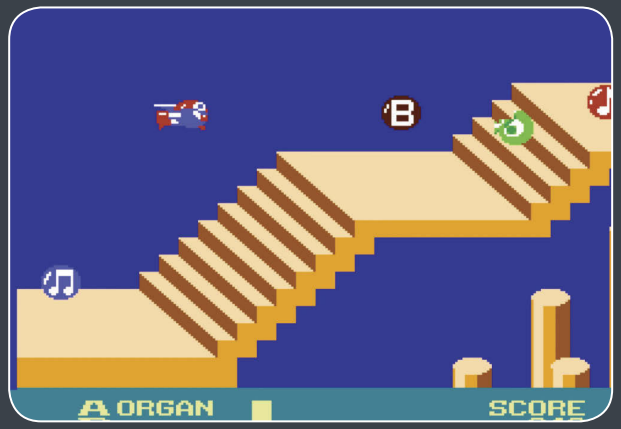
Nintendo 1988

Esper Dream

Konami 1987

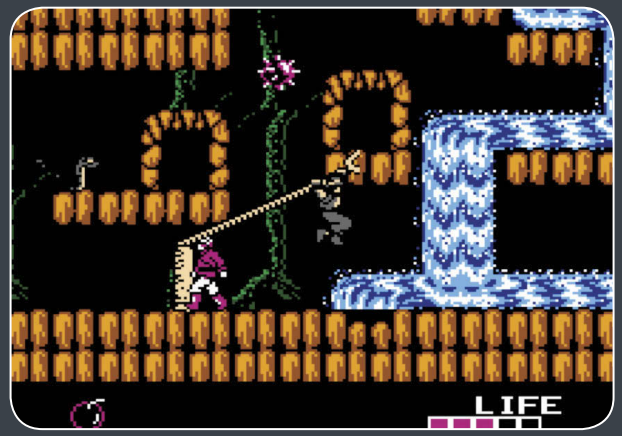
Otocky

ASCII 1987



Arumana no Kiseki

Konami 1987



Fourth *Generation*

Atari Lynx
Capcom CPS Changer
Commodore CDTV
Funtech Super A'Can
Mega Duck / Cougar Boy
NEC PC Engine / TurboGrafx 16
NEC PC Engine GT / TurboExpress
NEC PC Engine LT
NEC SuperGrafx
Nintendo Game Boy
Nintendo Super Famicom / SNES
Sega Megadrive / Genesis
Sega Game Gear
SNK Neo Geo AES
Philips CD-i
SNK Neo Geo CD
JVC Wondermega / X'Eye
Sharp X68000

NINTENDO had comprehensively 'won' the 3rd generation, fighting off challengers both new and old. Asserting their dominance in Europe took a little longer, but they eventually rolled out their 8 and 16-bit computers to gain a strong foothold.

Sega hadn't managed to make much ground against their countrymen, but they had done well enough to start planning their next-generation console.

NEC, on the other hand, had lost their second place in Japan to Sega and was practically unknown in Europe. Their initial strong sales in North America meant they remained in the game, but NEC was still unsure of the market. They weren't investing in marketing and had no plans for a true follow-up to the PC Engine.

Game consoles were finally back in the living room and stores were willing to stock them again. The 2nd generation crash was fading out of memory and publishers were getting rich.

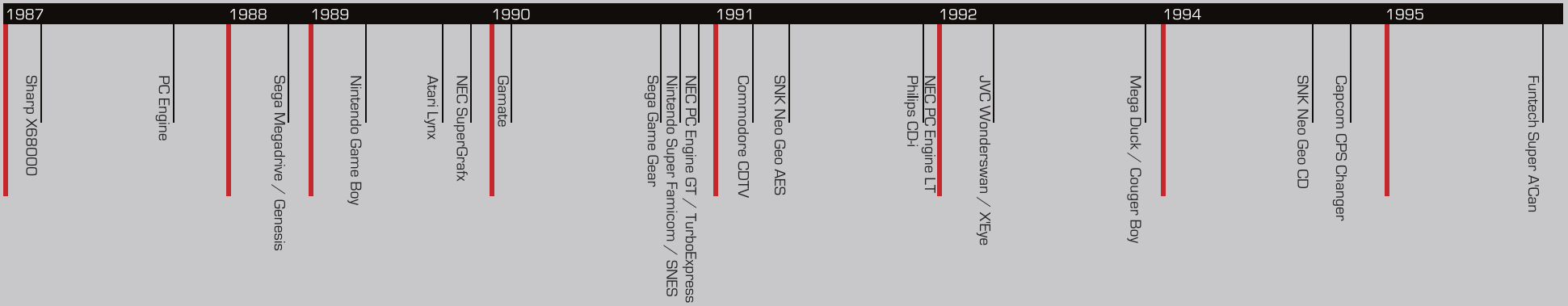
One by one, the smaller hardware makers fell behind Nintendo and Sega, and the market became a two-horse race with Nintendo riding the faster stallion.

Sega, to their credit, put up a fair fight, and that gave publishers the leverage they needed to break their exclusivity contracts with Nintendo.

Sega had truly established themselves, but they knew their next console couldn't just be an iteration of the Master System. To stay relevant, they needed to hit Nintendo and hit them hard.

The ensuing battle between these two Japanese giants defines the 4th generation, and out of this iconic contest, we got (what I firmly believe are) two of the greatest consoles ever made: the Nintendo Super Famicom and the Sega Megadrive. But these are classic machines, not fit for a book about the obscure. Included instead are the JVC Wondermega (4th gen) and the Sega Nomad (5th gen), which are both variants of the Megadrive.

Fourth Generation Timeline



6 NEC PC Engine GT

NEC entered the 4th generation the same way they entered the 3rd generation. And by that I mean they just re-released the PC Engine. This wasn't such a bad idea, actually, as the PC Engine was a powerful machine. Its poor sales had nothing to do with the console's abilities or games.

Initially, the PC engine held its own at the start of the 4th generation, but it quickly became outclassed once developers got to grips with the new Nintendo and Sega hardware.

The obvious thing for NEC to do would be to release a new, more powerful console. In reality, NEC just decided to release the same hardware in different cases (except the SuperGrafx, which was a slightly upgraded model).

This book includes two NEC consoles. Both are portable devices in principle. And in practice? Well, that depends on your definition of *portable*.

First up, it's the GT (from its project name, Game Tank), which is also known as TurboExpress in North America. The GT was NEC's answer to the Nintendo Gameboy, Atari's Lynx and the just-released Sega Game Gear.

Like the Lynx and the Game Gear, the GT has a colour screen but instead of the landscape format Sega and Atari had adopted, NEC made it portrait, closer to the Gameboy (although much chunkier).

Battery life on the GT is a problem. It uses six AA batteries and only lasts around three hours, which is less than either the Lynx at four and the Game Gear at five hours, and it is far less than the monochrome Gameboy that can last up to forty hours.

The screen is, in fact, the source of many of the GT's issues. LCD technology was still new at the time and NEC chose an especially poor screen. Its low resolution and muddy colours make reading text especially difficult—a problem for a machine well known for RPGs.

But the main reason for the low battery life, and also the GT's biggest strength, is the fact that it's basically a PC Engine in a mobile case. It can play the exact same games as its home brother, meaning you could take a game from the machine in your living room, put it in a GT, and it would play the same way.

This feature wasn't enough, however. The PC Engine line wasn't popular enough to begin with, and the poor battery life and even worse screen didn't entice many people.

Manufacturer: ***NEC***

Country: ***Japan***

Release Date: ***December 1990***

Discontinued: ***1994***

Total Sales: ***1.5m***

Launch Price: ***¥44,800***

The GT is relatively hard to get and the prices tend to be high. The low-quality capacitors are the problem. Leakage and failure are common, leading primarily to low or no sound and a screen that is slow to light up.

They are usually repairable but the capacitors are surface-mounted, so replacing them without using proper desoldering tools is tricky.

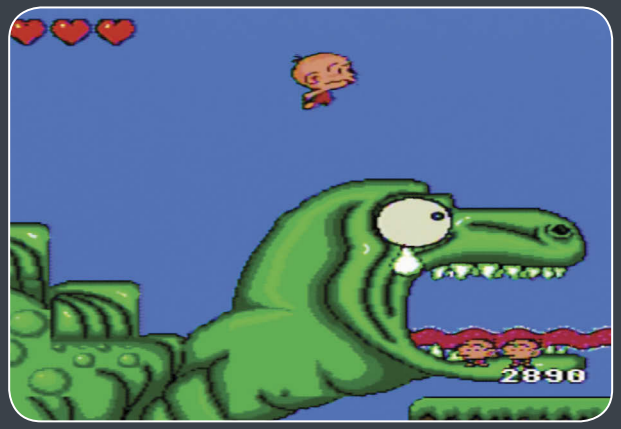
Unless you really want a portable device, it's easier and far cheaper to buy a PC Engine or TurboGrafx.

NEC
PC Engine
GT
II
I
II
I
SELECT
RUN
NEC
UHF VHF
13 1
30 2
3
4
50 8
62 12
CH CH

NEC
PC Engine
GT
II
I
SELECT
RUN
II
I
SOM

Bonk's Adventure

Hudsonsoft 1989



Atomic Robokid

UPL 1989

Victory Run

Hudson Soft 1987

F1 Circus

Nihon Bussan 1990

7 NEC PC Engine LT

THIS is the second of the 'portable' PC Engine variants. Why have I put portable in quotes? Well, the LT is a unique device.

Looking at the LT, it's plainly a PC Engine Core Grafx with an LCD screen stuck on top, and opening the clamshell doesn't detract from this opinion. Because that's exactly what it is.

Upon further inspection, the discerning among you may notice something fairly important missing. Something pretty much every portable device *needs*.

The LT doesn't have any batteries. There's no battery cover and there aren't any batteries built-in. This is a portable device that can't be used on the go. Barring any external battery system (NEC certainly didn't release anything), the LT can only be used within distance of a plug socket.

So, it's not truly portable, but it *is* a really good device. Unlike the GT, the LCD panel is clear and bright. It also has the TV Tuner built into the body with a switch to turn it on.

The body itself holds the HuCards with the usual power switch and card lock combination that most PC Engine devices have. The controls are built into the base and they are surprisingly usable. The LT has a decent weight and the screen doesn't make it top-heavy.

At its release, the LT was far too expensive, nearly twice the price of the base PC Engine. It was a tall order when all you were getting was an LCD screen. Needless to say, it didn't sell well. For these reasons, it's a particularly rare machine.

Manufacturer: ***NEC***

Country: ***Japan***

Release Date: ***December 1991***

Discontinued: ***1994***

Total Sales: ***23,000***

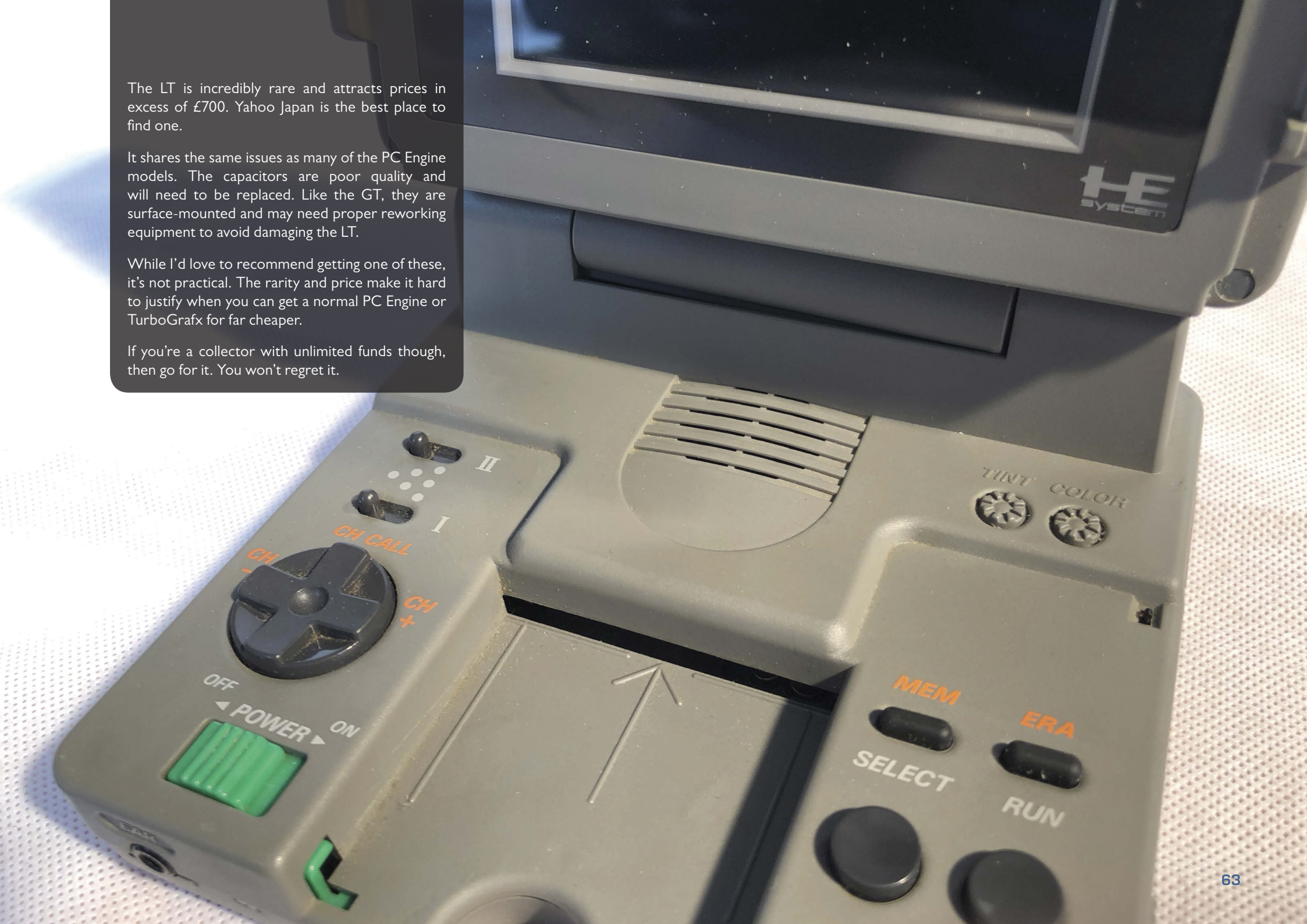
Launch Price: ***¥87,800***

The LT is incredibly rare and attracts prices in excess of £700. Yahoo Japan is the best place to find one.

It shares the same issues as many of the PC Engine models. The capacitors are poor quality and will need to be replaced. Like the GT, they are surface-mounted and may need proper reworking equipment to avoid damaging the LT.

While I'd love to recommend getting one of these, it's not practical. The rarity and price make it hard to justify when you can get a normal PC Engine or TurboGrafx for far cheaper.

If you're a collector with unlimited funds though, then go for it. You won't regret it.



NEC
PC Engine
LT
EAR

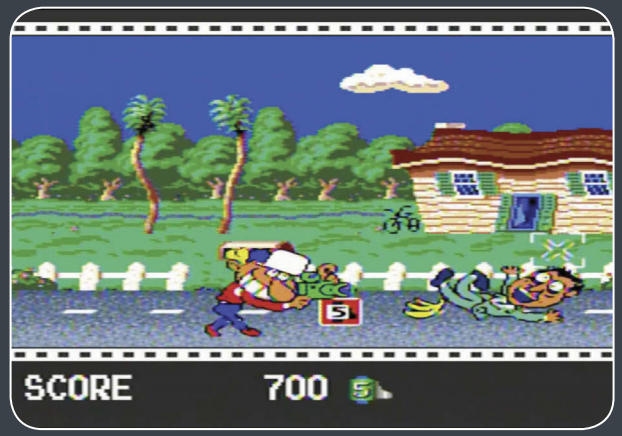
NEC
TINT
COLOR
MEM
ERA
RUN
SELECT
II
I
CH CALL
CH +
CH −
POWER
OFF
ON
PAD
BRIGHT
VOLUME

R-Type Part 1

Irem 1988

Gekisha Boy

Irem 1992



Blazing Lazers

NEC 1989

Bomberman ‘94

Hudson Soft 1993

8 Sharp X68000

I have a strict rule. I only own consoles, and I define a console simply as a gaming device that doesn't have a keyboard as standard. The X68000 is the exception that proves the rule.

Joking aside, there is a very real and important reason why I chose to include the X68000. It's responsible for some of the best arcade games of all time.

During the 1980s, Japan hadn't embraced the same IBM PC compatibility as the west. They had their equivalent PC98 standard (which had nothing to do with the year; the first compliant computer was released back in 1982), but unfortunately, the standard was so ubiquitous that it stopped manufacturers experimenting.

In 1987, Sharp released the first model of the X68000, so called because it was based on Motorola's 68000 CPU. It had a DOS-like operating system called Human68k, which used mostly English commands. Later on, Sharp would release SX-Windows, a simple windowing OS.

This initial model is pretty powerful, featuring advanced graphics and sound. Consequently, Capcom adopted it as their main development platform and based their CPS arcade board around a similar specification.

And that's why the X68000 is in this book. Most of the CPS titles were developed on a variation of the X68000, including classics like *Street Fighter II* and *Final Fight*.

There are a lot of variations (too many to list), but the X68000 started in 1987 with a 68000 CPU, dual 5.25" floppy disks, no hard drive and a unique twin case, and ended in 1993 with a machine based on the 68030 CPU, 3.5" disks and a 80MB SCSI Hard Drive in a slimline tower case.

Memory started at 1MB with most machines being upgradable to at least 12MB.

Due to its arcade roots, the X68000 is home to some of the best arcade ports of the time. *Street Fighter II*, in particular, is incredibly faithful, especially if you use the included adaptor that allows you to use a six-button Megadrive controller.

The console's Motorola processor also meant that several Amiga and ST titles were ported. Among these is the excellent *Dungeon Master*, a good port featuring colourful graphics and great sound.

The X68000 never left Japan, which makes sense. There was no place for it in North America or Europe. It was incompatible with the IBM PC standard and expensive too, not an easy sell as either a games or a business machine.

Manufacturer: ***Sharp***

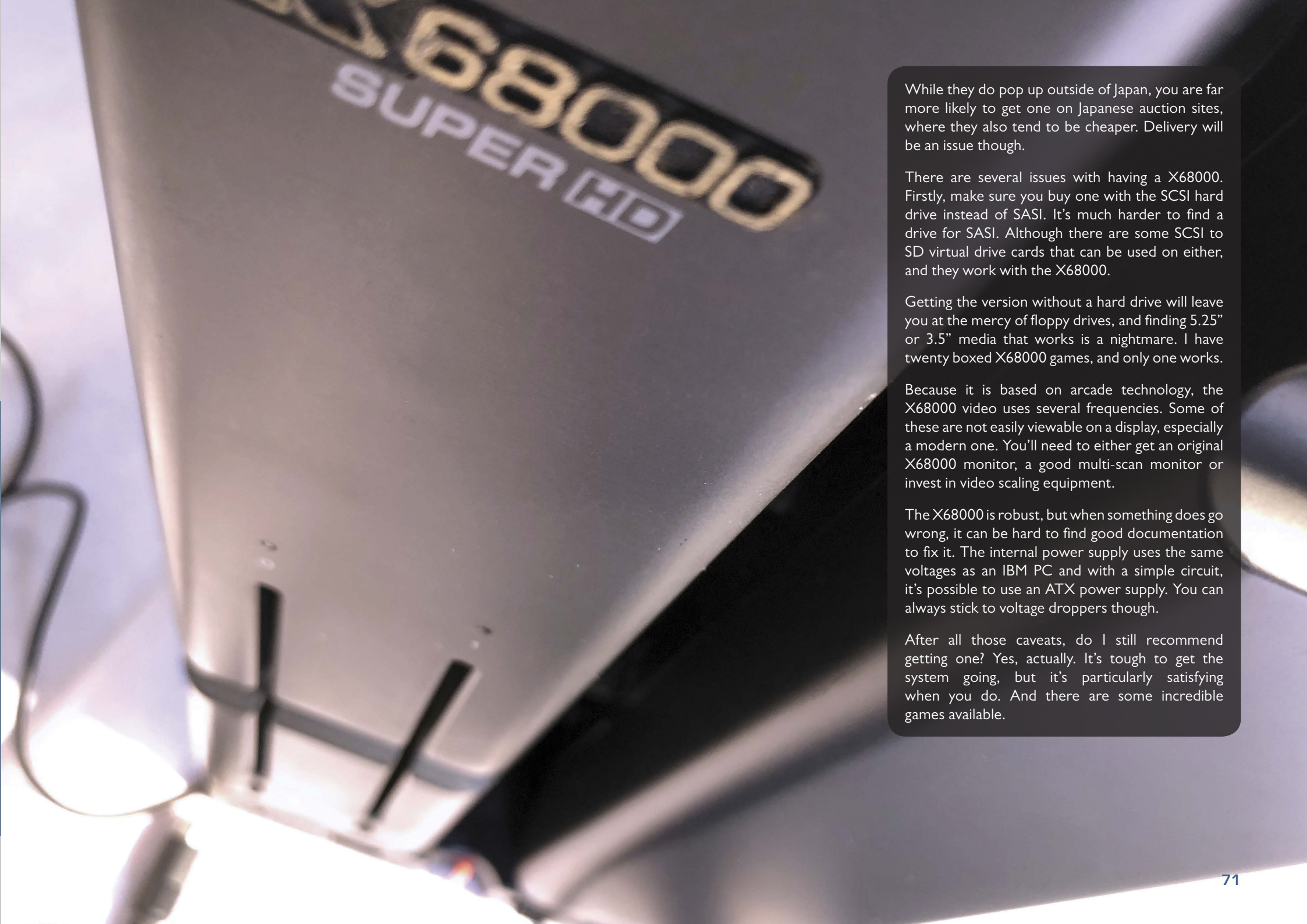
Country: ***Japan***

Release Date: ***March 1987***

Discontinued: ***January 1994***

Total Sales: ***Unknown***

Launch Price: ***¥370,000***



While they do pop up outside of Japan, you are far more likely to get one on Japanese auction sites, where they also tend to be cheaper. Delivery will be an issue though.

There are several issues with having a X68000. Firstly, make sure you buy one with the SCSI hard drive instead of SASI. It's much harder to find a drive for SASI. Although there are some SCSI to SD virtual drive cards that can be used on either, and they work with the X68000.

Getting the version without a hard drive will leave you at the mercy of floppy drives, and finding 5.25" or 3.5" media that works is a nightmare. I have twenty boxed X68000 games, and only one works.

Because it is based on arcade technology, the X68000 video uses several frequencies. Some of these are not easily viewable on a display, especially a modern one. You'll need to either get an original X68000 monitor, a good multi-scan monitor or invest in video scaling equipment.

The X68000 is robust, but when something does go wrong, it can be hard to find good documentation to fix it. The internal power supply uses the same voltages as an IBM PC and with a simple circuit, it's possible to use an ATX power supply. You can always stick to voltage droppers though.

After all those caveats, do I still recommend getting one? Yes, actually. It's tough to get the system going, but it's particularly satisfying when you do. And there are some incredible games available.

The standard keyboard has separately addressable lights on some of the keys, and a few games use this feature. *Cotton* being the best example. This fantastic shooter flashes the lights in time to its theme music.

The X68000 Compact slimmed down the original design and eschewed the 5.25” disks for the smaller and more modern 3.5” ones. It also added a switch to flip between 10 and 16 MHz processor speeds.

Gradius 2

Konami 1992

Final Fight

Capcom 1989

Cotton: Fantastic Night Dreams

Electronic Arts Victor 1993

Akumajou Dracula

Konami 1993

9 JVC X'Eye / Wondermega

NEAR the end of the Megadrive's life, Sega was throwing variants and add-ons into the market while waiting for the next generation to pick up. A few of these variants included the moderately successful CD add-on.

Sega released their own combined unit in the form of the CDX, but they also licensed development to a number of third-parties, including Aiwa and JVC.

JVC took their license and designed a combined Megadrive / CD unit, called the Wondermega in Japan. For the North American release, they did a minor re-design and gave the console a new name, the X'eye.

The X'eye is a striking machine, and it's only when you put it next to a full Mega-CD (Sega CD) and Megadrive setup that you realise how compact it is.

The CD tray is the flip-up variety, similar to the Mega-CD 2, and it uses the same smaller video cable as the Megadrive 2. In addition, there are two normal controller ports at the front and the cartridge slot to the left of the CD tray.

There isn't a confirmed explanation for the name. The X seems to be short for Crossover, and the CD part looks a little like an eye.

Manufacturer: ***JVC***

Country: ***Japan***

Release Date: ***April 1992***

Discontinued: ***1995***

Total Sales: ***approx. 58,000***

Launch Price: ***$500***

The Wondermega 1, 2 and X'Eye are tricky to obtain. The good thing about both of them is that they use an external DC PSU. Getting an equivalent (centre positive, 9.5V @ 1.5A) means you don't need a step-down converter (if you're in a 220–240V country). Although the Megadrive 2 PSU does fit and will allow the X'Eye to turn on, the lower amperage means it's not a viable long-term solution.

If you ignore the rarity and the price, I could almost recommend the X'Eye. Unfortunately, it has a bit of an issue if you want to play the entire Megadrive range easily. The 32X blocks the CD Tray when it's inserted, and this means it can't be used with CD games that require swapping. Plus, the 32X is flaky enough without having to remove it.

Although the CDX is also rare, it's not as scarce as the X'Eye and it's a little cheaper. It has a similar issue with the 32X, but it is possible to connect it in a way that allows CDs to be changed.

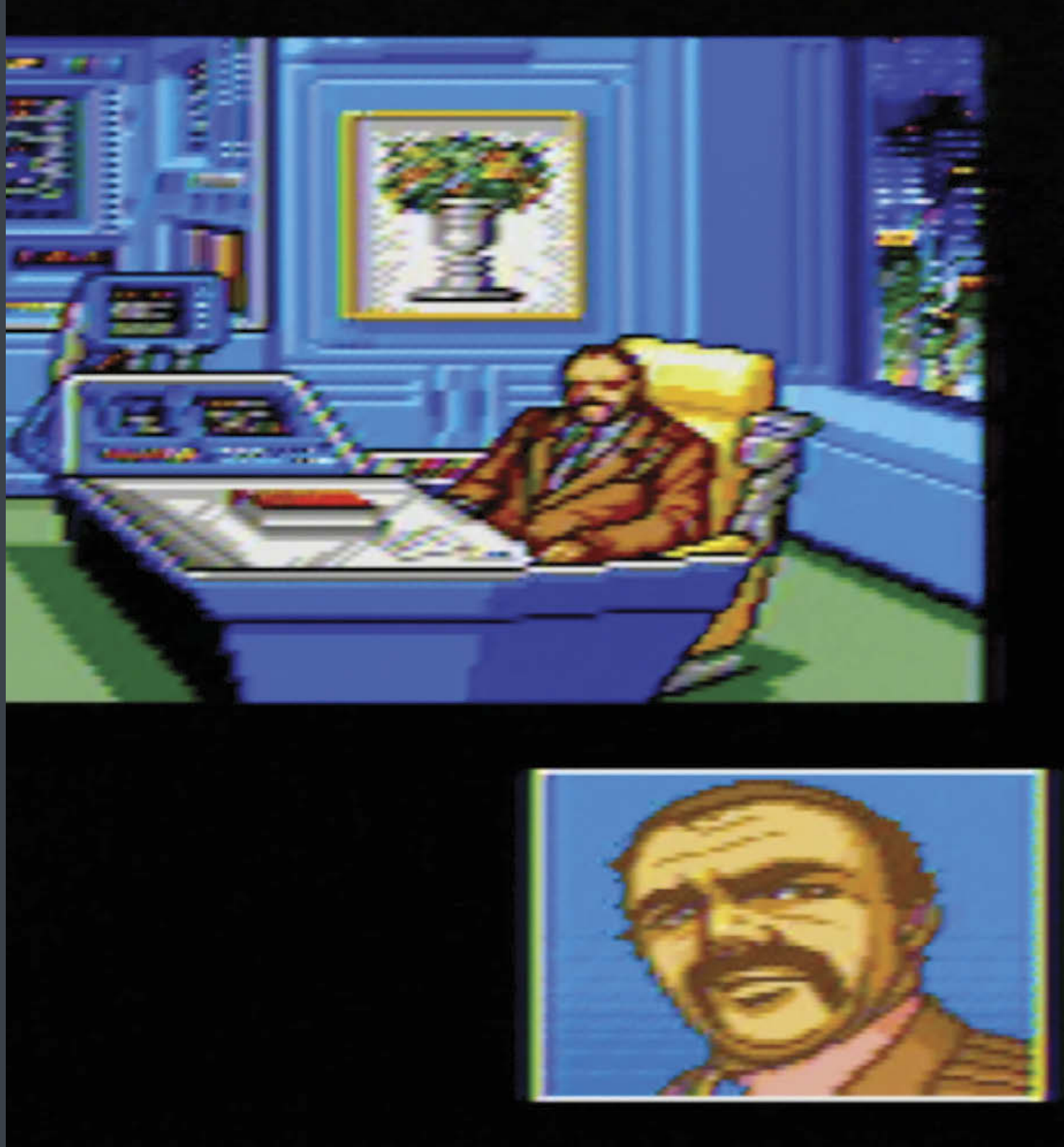
The CDX just doesn't look as nice and its CD mechanism is not as robust.

JVC
X'EYE
POWER
RESET
COMPACT
disc
PUSH CLOSE
OPEN
POWER
ACCESS

Sega released its own combined unit, the CDX. It wasn't successful, but it didn't help the sales of the Wondermega / X'Eye either.

Snatcher

Konami 1994

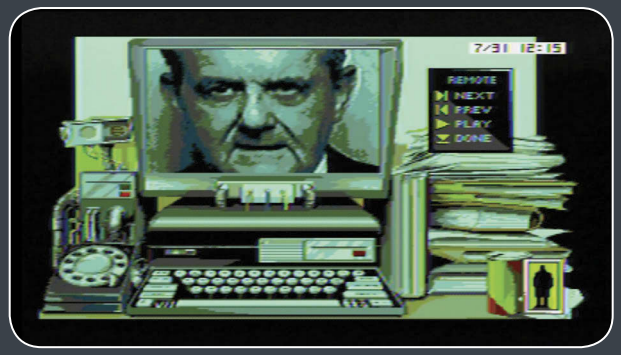


Robo Aleste

Compile 1992

Rise of the Dragon

Sierra On-Line 1992



Earthworm Jim: SE

Playmates Interactive Entertainment 1995

Fifth *Generation*

Fujitsu FM Towns Marty
3DO / Panasonic FZ-1
Commodore Amiga CD32
Atari Jaguar
Sega Saturn
Sony Playstation
NEC PC-FX
Bandai Playdia
Apple / Bandai Pippin
Casio Loopy
Sega Genesis Nomad
Nintendo Virtual Boy
Nintendo 64 / 64DD
Game.com
Neo Geo Pocket
Wonderswan

IN this generation, the slow adoption of CD technology gave way to a full-bore replacement of cartridges (well, except for Nintendo who doggedly stuck to their guns), but really, the defining event wasn't the support of CDs so much as a third player joining the game.

Sega and Nintendo had fought a close battle in the previous generation (the other console companies were small fry), but now Sony arrived on the battlefield. And boy did they come prepared.

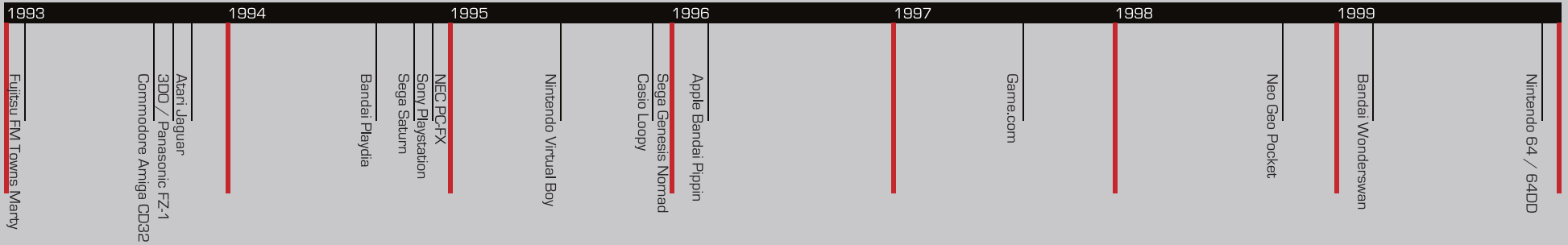
The Playstation, despite a slow start in Japan, became a worldwide phenomenon in the same year it was released. Heralding the arrival of 3D graphics as the norm and eschewing cartridges (except for saving), the Playstation was a revolution. It wasn't the first console to use CDs, it wasn't the first to use 3D, but after its release in 1994, it made those features standard rather than an add-on or variant as they had been before.

The story of how the Playstation was born is out of scope for this book, and the history is reported well in other works, but the short version is effectively that it was released as revenge against Sega and Nintendo.

Gaming was about to reach its pinnacle. Nintendo had rebuilt the console market after the American games crash, but Sony would make it popular. Using some of the same marketing people that Sega had used for their fight against Nintendo, Sony campaigned to make gaming *cool*. Their marketing worked. A niche hobby quickly became something that celebrities bragged about.

And with this changing landscape, a few large publishers consumed their smaller counterparts. Money became more of a driving force than art.

Fifth Generation Timeline



10 Sega Nomad

SEGA was a tale of two companies. The Japanese side enjoyed a measure of success with the Saturn (which held its own against the Playstation) while the Megadrive underperformed. In North America, the situation was the exact reverse.

After seeing a MegaJet (essentially a Megadrive in a compact case that Sega had made for Japanese Airplanes), an American Sega engineer realised the potential to create a powerful handheld device that could run standard Megadrive games. Just add a screen to the MegaJet, run it off batteries… and voilà.

America's senior management liked his idea, and the Nomad was born. They initially planned to use a touch screen and include PDA-like features, but that inflated the price too much. Sega opted to use a normal colour LCD screen instead.

But the Nomad was beset with problems and doomed to fail.

In Japan, the Megadrive didn't sell particularly well. It ultimately earned a very distant second place to Nintendo, and it was lucky to get that, in fact, as it had lost second to NEC on more than one occasion during the race. The Saturn, on the other hand, was actually winning against the Playstation at the time. As such, Sega Japan had zero interest in selling the Nomad and passed on it completely. This meant that Europe would pass on it too. Japan had a lot of sway there and despite the Megadrive's success and the Saturn's underperformance against the Playstation in Europe, they would not be permitted to sell the Nomad.

Consequently, the Nomad was sold exclusively in North America. Sales were so poor that they never recouped the cost of its expensive development.

Because the Nomad was released in addition to the Game Gear, Sega was now in the uncomfortable position of supporting two generations of handheld devices as well as three generations of home consoles. The underperforming Nomad was quietly cancelled.

Manufacturer: ***Sega***

Country: ***Japan***

Release Date: ***October 1995***

Discontinued: ***1999***

Total Sales: ***approx. 1m***

Launch Price: ***$180***

The Nomad is hard to find and purchase, but it does turn up on eBay, especially in American auctions. If you live in America, you may even find it in classified ads and goodwill stores.

It's a robust machine. The only issue is the poor-quality screen, but that is easy to replace. Even an LCD from a cheap car-reversing screen will be better quality and use less power than the original.

I'm reluctant to recommend the Nomad, given the cost, but if you can find one for a reasonable price, then it's a nice way to play Genesis games on the go. There are a number of mods that help with battery life, including one to replace the AA batteries with a rechargeable module.

NOMAD
MODE
START
CONTROL 2

SEGA™
LOW BATT.
X
Y
Z
A
B
C
MODE
START
GENESIS® NOMAD™

Sonic

Sega 1991

Gunstar Heroes

Treasure 1993

Streets of Rage

Sega 1991

Jungle Strike

Electronic Arts 1993

11 Bandai Playdia

BANDAI was no stranger to the games industry. They were there from the start, in fact, with their release of the TV Jack 1000, a 1st generation console. However, they never really had an answer for Nintendo or Sega in the following generations.

This didn't change with the Playdia. To be fair, Bandai wasn't targeting the same audience. They tried to create more of a kid's multimedia device than a dedicated games machine. This is evident not only from the titles that were released for the console, but also its design and cheerful blue violet and green colours.

The Playdia was actually one of the first systems to use a wireless controller, but unlike modern controllers that use radio frequency technology, the Playdia uses infrared, which doesn't work particularly well in this case. A player has to sit close to the unit to avoid the signal being blocked.

Unfortunately, the console's weak technical specs (it only has an 8 MHz processor) and its limited audience meant that Bandai struggled to find developers. They ended up producing all their titles themselves (expect for a couple from VAP). Bandai had seriously underestimated how popular Nintendo and Sega would be with their target audience.

In the end, thirty-three titles were released for the Playdia, most of them being edutainment, quiz and simple button-press games based on anime titles. A further six titles were developed but never sold.

There are no homebrew communities or emulators for the Playdia. At least, none that I know of. Perhaps, this lack of interest is unsurprising, given the device's poor performance and the fact that it was never released outside of Japan, but I find it a little unusual nonetheless. The machine does have a few custom chips, including an MPEG 1 decoder for streaming video.

Manufacturer: ***Bandai***

Country: ***Japan***

Release Date: ***September 1994***

Discontinued: ***1996***

Total Sales: ***< 20,000***

Launch Price: ***¥24,800***

The Playdia may lack in performance, but is a well-built machine. It's solid and no-frills, and the chances are that if you get one, it will work properly out of the box.

The easiest way to get a Playdia is from Japan. You can grab one for a bargain at one of the many auction sites. But unless you're really into Bandai's properties (like *Gundam* and *Dragonball*) and need to own everything to do with them, it's really not worth it.

OFF
POWER
ON
ACCESS
INFRARED RAYS
CONTROLLER
A
B

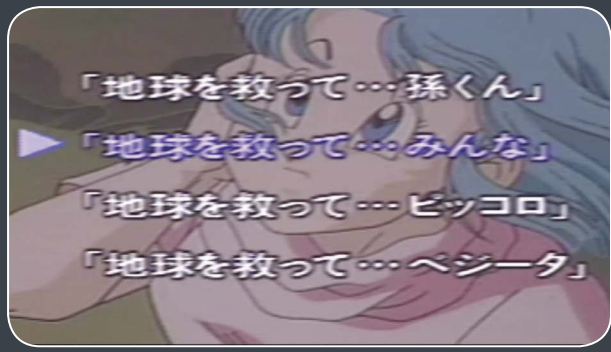
Playdia
QUICK INTERACTIVE SYSTEM
RESET
OFF
POWER
ON
ACCESS
OPEN
INFRARED RAYS
CONTROLLER
A
B
Q.I.S
COMPACT
disc

Aqua Adventure

Bandai 1994

Dragon Ball Z - Shin Saiyajin Zetsumetsu Keikaku Uchuu Hen

Bandai 1994

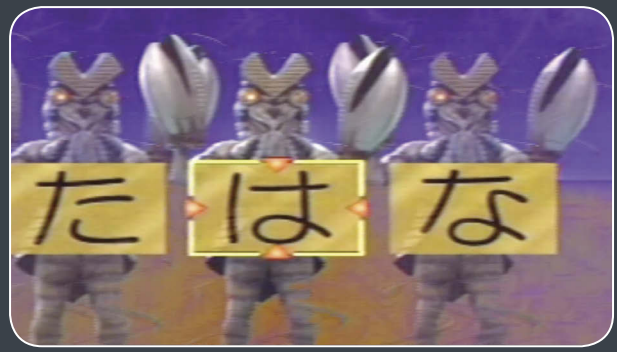


Newton museum - Kyouryuu Nendaiki Kouhen

Bandai 1994

Ultraman - Hiragana Dai Sakusen

Bandai 1995



12 FM Towns Marty

ARMED with their FM Towns systems, Fujitsu battled furiously to win Japan's PC98 throne. One of their main rivals, NEC, was also doing well in the console market, so Fujitsu decided to fight them on this second front.

But instead of making a custom platform like NEC, Fujitsu simply took the base model from their FM Towns range and put it in a home-friendly casing. And that's the Marty, an advanced PC in a compact casing. Unsurprisingly, it was an expensive console.

Despite earning a number of firsts, including being the first 32-bit console (beating the 3DO by a couple of months), the high price dissuaded consumers, and together with its limited availability, the Marty's sales figures were uninspiring.

Fujitsu had to drop the price, but that's hard to do with a system that's inherently expensive to build. Developer license fees could have helped the situation, but the Marty had been designed to run software that was compatible with its PC big brother, which meant that many developers could avoid paying a fee.

And yet, somehow the Marty team managed to persuade Fujitsu's board to give it one more try. They re-released the Marty, now in a darker grey casing, with a lower price tag. But the internals were the same as the first model, meaning that Fujitsu's margins were even smaller.

Not long after this second release, the Marty was cancelled. Sales had increased noticeably, but the mounting costs due to the lower price just scared the board too much.

This decision resulted in a new Japanese business law, called *The Marty Law*. It reads, 'If you don't offer something for sale, then you can't get sales'.

The Marty has a double speed CD Rom, a 3.5" floppy drive and a PCMCIA slot. The floppy drive was included to offer compatibility with FM Towns games, which need storage for saved games. A few games also require a floppy for copy protection.

Marty technology would later be re-used by Fujitsu Ten, the company's car audio division. Using this technology, they created one of the first car entertainment systems, pushing video, games and GPS to multiple screens.

There's a few competing stories about the origin of the name *Marty*, but the one I like the most is that Fujitsu wanted the console to sound more American.

Manufacturer: ***Fujitsu***

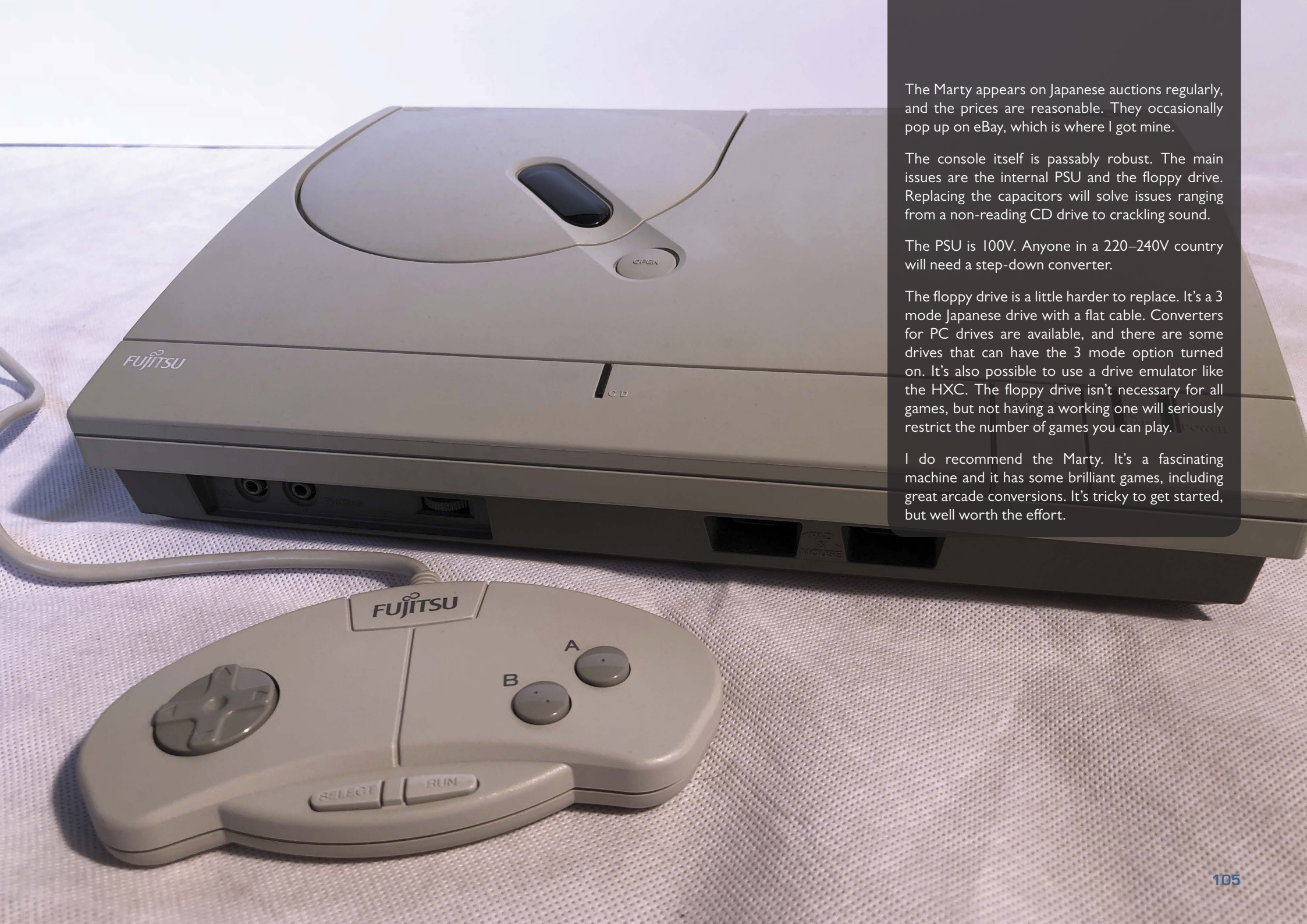
Country: ***Japan***

Release Date: ***March 1992***

Discontinued: ***March 1994***

Total Sales: ***18,000***

Launch Price: ***¥38,000***



The Marty appears on Japanese auctions regularly, and the prices are reasonable. They occasionally pop up on eBay, which is where I got mine.

The console itself is passably robust. The main issues are the internal PSU and the floppy drive. Replacing the capacitors will solve issues ranging from a non-reading CD drive to crackling sound.

The PSU is 100V. Anyone in a 220–240V country will need a step-down converter.

The floppy drive is a little harder to replace. It's a 3 mode Japanese drive with a flat cable. Converters for PC drives are available, and there are some drives that can have the 3 mode option turned on. It's also possible to use a drive emulator like the HXC. The floppy drive isn't necessary for all games, but not having a working one will seriously restrict the number of games you can play.

I do recommend the Marty. It's a fascinating machine and it has some brilliant games, including great arcade conversions. It's tricky to get started, but well worth the effort.

While the Marty may have failed, its legacy is undeniable. The console was an elegant mix of PC architecture and gaming design, something we'd see later in the original Xbox and in the PS4 and Xbox One.

The Car Marty effectively created the car entertainment system and revolutionised the way GPS was used.

Splatterhouse

Namco 1992

Chase HQ

Taito 1993

New Zealand Story

Taito 1989

Viewpoint

Sammy 1993

13 Nintendo Virtual Boy

THE 3D System add-on for the Famicom, released in 1987, was Nintendo's first foray into the 3D landscape, but it wasn't popular. The 3D goggles were awkward and only a few games were made to support it. As a result, Nintendo shelved their 3D plans.

Fast forward to 1991 when an American company, Reflection Technology Inc, tried to sell *Private Eye*, their red LED-based 3D headset. They approached Sega, but the house of Sonic was put off by the single-colour display and the fact that the headset caused motion sickness. Their prospects didn't look bright.

But then, the technology came to the attention of Nintendo's Gunpei Yokoi, the father of the Game Boy. He was looking for a revolutionary offshoot from their current handheld offerings, and the Private Eye, he thought, was it. Gunpei approached the board with the project, now codenamed VR32. His reputation and sales pitch—that VR32 would leapfrog Nintendo to the front of the race—won the day.

The vision was to create a strap-on headset with multi-colour display and head-tracking, but the development of project VR32 suffered setbacks. By 1995, the resulting product was the Virtual Boy, a viewport mounted to a bipod. Single-colour display. No head-tracking.

The Virtual Boy was a staggering failure, both commercially and functionally. It was sold as a portable device, but it can't be used away from a table. Despite being Nintendo's first 32-bit system, customers were not impressed. It was more expensive than the Game Boy, but the graphics looked primitive. Journalists were likewise unimpressed with the red monotone, the lack of motion detection, the mediocre 3D effects and the rumours of motion sickness and headaches.

Nintendo had projected sales of 2.5 million in North America alone, but the Virtual Boy only sold around 770,000 in both North America and Japan. It remains Nintendo's biggest failure.

The media widely reported that Gunpei Yokoi's resignation was a direct result of this disaster, but Mr. Yokoi disputed this claim. He had intended, in fact, to retire four years prior, but delayed his plan to work on VR32. In his last year at Nintendo, probably to take responsibility for the Virtual Boy, he worked on the Game Boy Pocket, which was released to critical acclaim. After his resignation, Gunpei founded his own company, designed the Wonderswan and sold it to Bandai.

Manufacturer: ***Nintendo***

Country: ***Japan***

Release Date: ***July 1995***

Discontinued: ***March 1996***

Total Sales: ***770,000***

Launch Price: ***¥15,000***

The Virtual Boy can be purchased easily. They often appear on auction sites. Prices are around £250 to £400, depending on condition.

A lot of the games are reasonably priced with the occasional title, such as *Space Invaders*, going for a premium price.

If you can afford the Virtual Boy and some of the better games like *Wario Land, Mario Clash, Red Alert* and *Jack Bros.*, then I can recommend it. It's a fun console. A word of caution, however. Many people find the machine uncomfortable to use and complain that it causes nausea and headaches.

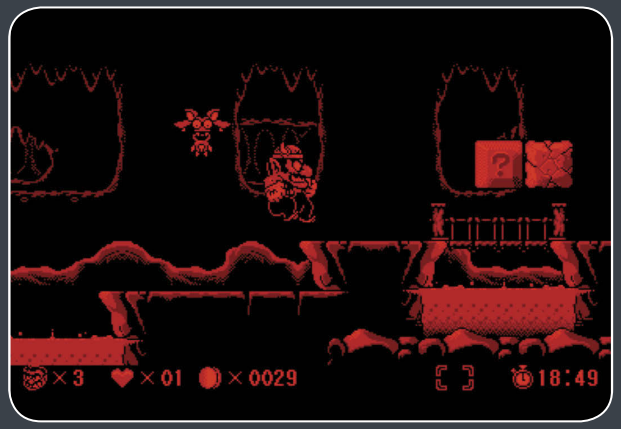
The power comes from the controller and there are two types, battery and PSU. The latter will work with a Megadrive supply.

FOCUS

VIRTUAL BOY
SELECT START
B A
VIRTUAL BOY

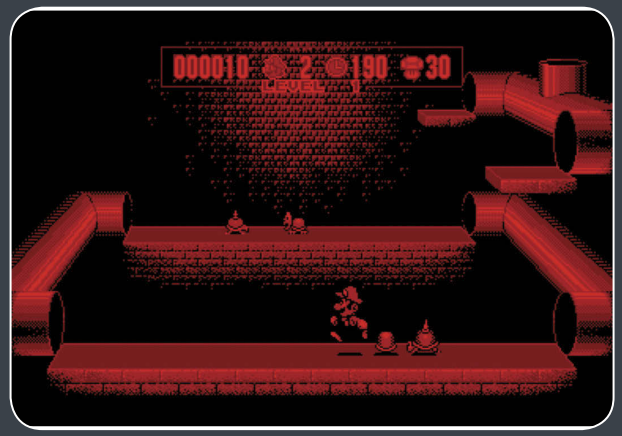
Wario Land

Nintendo 1995



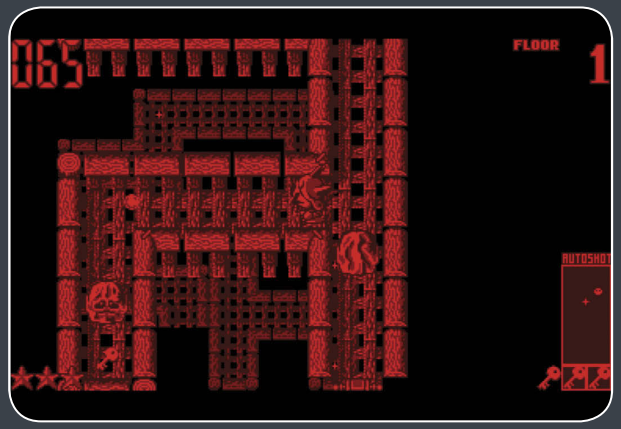
Mario Clash

Nintendo 1995



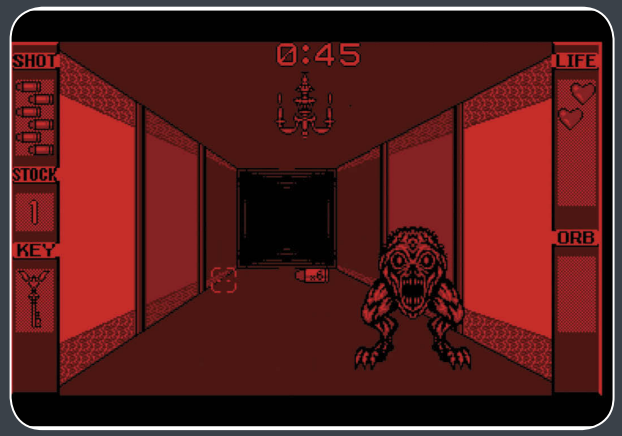
Jack Bros.

Atlas 1995



Insmouse no Yakata

I'Max 1995



14 NEC PC-FX

NEC had spent the previous two generations selling, basically, the same machine. The PC Engine performed well in the 3rd and even the 4th generation, but now the hardware was showing its age.

Of course, NEC released a few variations, including the slightly enhanced SuperGrafx and CD Rom combo units like the Duo, but they couldn't compete with the likes of Super Nintendo and Megadrive.

A new machine was called for, and NEC had the PC-FX ready to go. Like rival consoles, it boasts a CD Rom—a key 5th generation feature. The machine does not, however, have any real 3D capabilities. Given the rising popularity of 3D at the time, this was a major mistake on NEC's part. How did that happen? Well, it makes sense when you look at the history.

Back in 1992, NEC had already designed the 32-bit PC-FX. Their initial intent was to release it as a 4th generation console, but during its development, the PC Engine retained a large fan base in Japan, frequently outselling the Megadrive. This prompted NEC to cancel the PC-FX and release the SuperGrafx instead, which was a sensible decision given that it was backwards compatible with the PC Engine.

Two years later, when they desperately needed a 5th generation contender, they simply released the same, unchanged PC-FX. Sadly, this release came just weeks after the Playstation, and NEC found themselves stuck in the new 3D world with an older generation 2D system.

The PC-FX intentionally looks like a small PC to promote the idea that the system is upgradable. NEC hoped that the machine's upgradeability would prolong its lifespan like it had with the PC Engine. NEC potentially could have added a 3D option, but this simply wasn't ready.

If you ignore the lack of 3D, the PC-FX is a powerhouse console. The various 2D games for it are gorgeous, colourful and fast. It is capable of making fast-running animations using JPEG streams. The media chip has built-in decompression routines that can synchronise images and digital audio at thirty frames per second, meaning the PC-FX has the best full-motion video of its generation.

One of the major criticisms at the time was that NEC had ordered Hudson Soft to concentrate on anime-based games that used full-motion video. This decision meant that long-time franchises like *Bomberman* never made it to the system. However, it's unlikely this would have changed the PC-FX's fate.

Manufacturer: ***NEC***

Country: ***Japan***

Release Date: ***December 1994***

Discontinued: ***February 1998***

Total Sales: ***400,000***

Launch Price: ***¥52,000***

The PC-FX turns up on eBay every now and then and the prices are occasionally reasonable. It also appears on retro stores, as do the games. As usual with Japan-only consoles, your best bet is try the Japanese auctions using a middleman.

The PC-FX is a reliable, well-built machine. The PSU is internal, which means you'll need a step-down converter if you live in a 220–240V country.

There aren't many games available, and it became a home to cheap Hentai releases near the end of its life, but there are some good titles and the majority sell for decent prices.

If you can get one cheap enough, it's a fun console to own, but consider its lack of backwards compatibility with the PC Engine and limited games before investing.

NEC
PC-FX
POWER
BUSY
PUSH OPEN
NEC
MODE 1
MODE 2
SELECT
RUN

NEC
PC-FX
POWER
BUSY
PUSH OPEN

Der Langriser FX

NCS 1996

Chip Chan Kick!

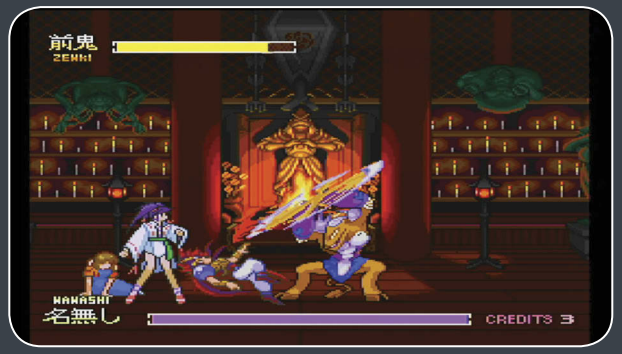
NEC 1996

Tyoushin Heiki Zeroigar

NEC 1997

Kishin Douji Zenki FX:Vajura Fight

Hudson Soft 1995



15 Apple Bandai Pippin

IN 1996, in a post-Jobs world, Apple was searching for ways to spread their PowerPC platform. Consoles, they thought, was the direction they ought to go. Consoles were in many living rooms. Consoles were *popular*. Their course decided, they partnered with Bandai and developed the Pippin Platform, a derivative of Apple's existing Power Mac computers.

Bandai released two Pippin consoles: the ATMARK for Japan, and the @WORLD for the US. The only appreciable difference between them is their colour. The Japanese version is off-white to grey and the US version is black. Katz Media released the Pippin in Europe as the Katz Media Player 2000, a moderately improved model with more memory.

Overall, the Pippin's hardware was over-engineered. The console has multiple video options (including VGA), the main processor is a PowerPC 603e 66 (the same processor used by the lower-end Macs at the time) and it has a separate modem that was included in the box with the software to connect to a dedicated Internet service.

Consequently, the Pippin was an expensive system, and that killed sales. The final nail in the coffin was the machine's lack of a dedicated 3D chip. Here's another example of a console that couldn't really offer 3D games in a generation that practically demanded it. In Europe, many of the poor-selling consoles ended up in libraries.

The joypad is brilliant though. The Apple Jack, as it's called, has a trackball and a long cable. It's genuinely a pleasure to use.

When Steve Jobs returned as CEO of Apple, one of the first things he shut down was the licensing program. This effectively killed the Pippin and Bandai stopped producing them (although this was probably more of a relief than anything).

Manufacturer: ***Apple / Bandai***

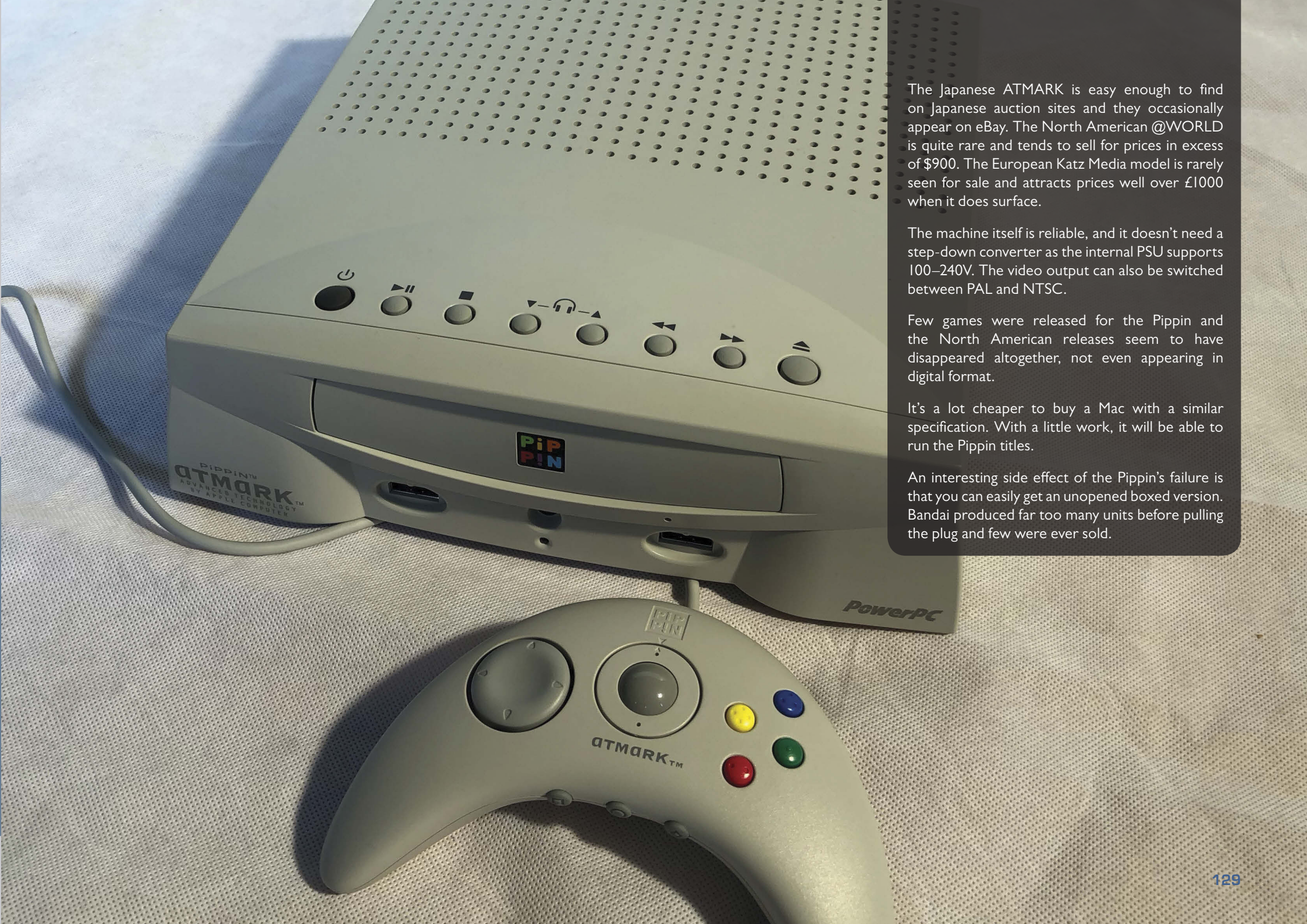
Country: ***USA / Japan***

Release Date: ***September 1996***

Discontinued: ***1998***

Total Sales: ***42,000***

Launch Price: ***$599***



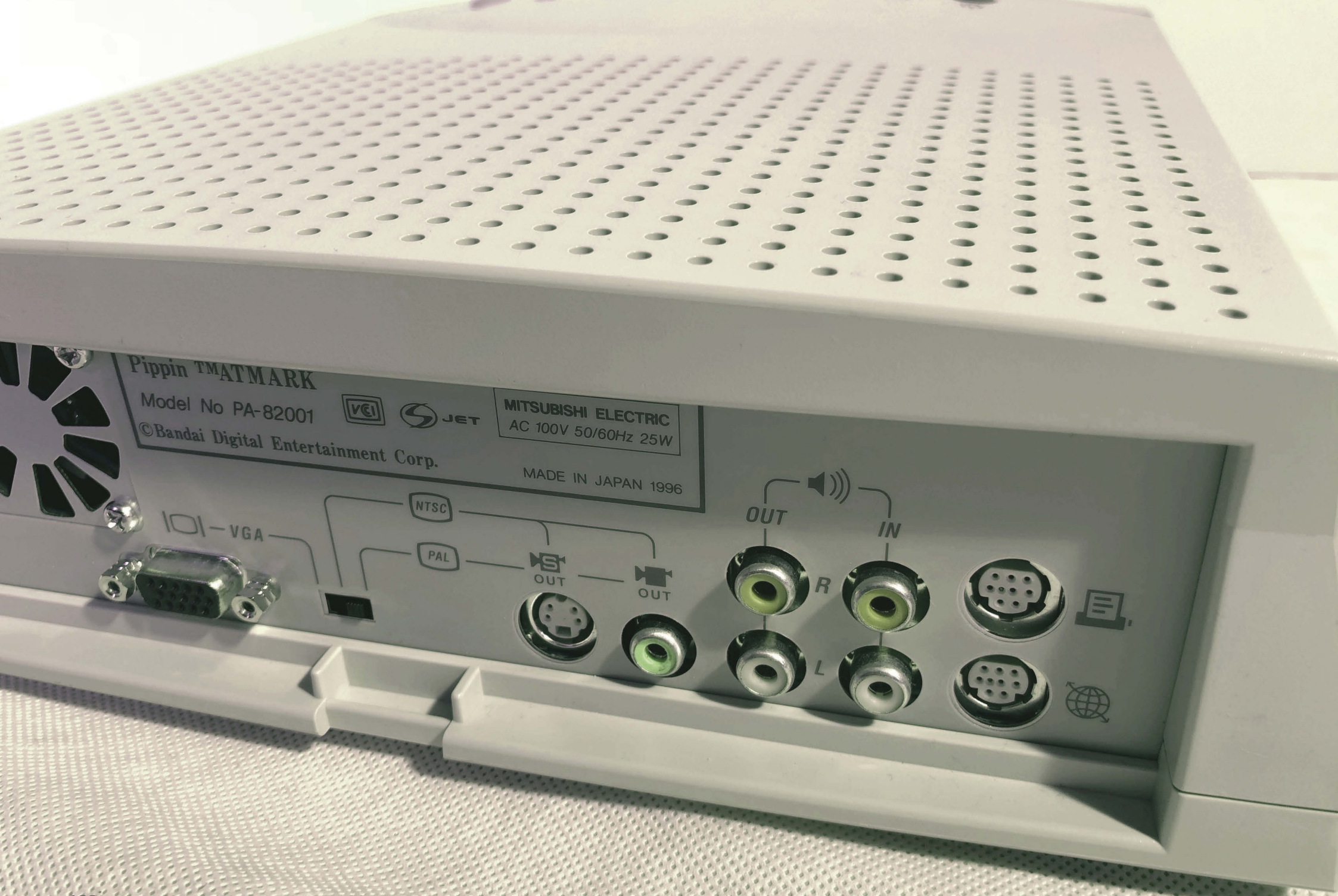
The Japanese ATMARK is easy enough to find on Japanese auction sites and they occasionally appear on eBay. The North American @WORLD is quite rare and tends to sell for prices in excess of $900. The European Katz Media model is rarely seen for sale and attracts prices well over £1000 when it does surface.

The machine itself is reliable, and it doesn't need a step-down converter as the internal PSU supports 100–240V. The video output can also be switched between PAL and NTSC.

Few games were released for the Pippin and the North American releases seem to have disappeared altogether, not even appearing in digital format.

It's a lot cheaper to buy a Mac with a similar specification. With a little work, it will be able to run the Pippin titles.

An interesting side effect of the Pippin's failure is that you can easily get an unopened boxed version. Bandai produced far too many units before pulling the plug and few were ever sold.


Pippin ™ATMARK
Model No PA-82001
©Bandai Digital Entertainment Corp.
MITSUBISHI ELECTRIC
AC 100V 50/60Hz 25W
MADE IN JAPAN 1996
VGA
NTSC
PAL
OUT
OUT
OUT
IN
R
L

PiPPiN
PiP
PiN
PiPPiN™
ATMARK™
ADVANCED TECHNOLOGY
BY APPLE COMPUTER
PiP
PiN
ATMARK™

Super Marathon

Bandai 1996

Gundam Tactics: Mobility Fleet 0079

Bandai 1996

Racing Days

Bandai 1996

Shockwave Assault

Electronic Arts 1995

16 Nintendo 64DD

YES, this one is a bit of a cheat. The 64DD is a magnetic disk drive peripheral for the Nintendo 64 and not a console in its own right, but I include it regardless because Nintendo's big failures are rare, making them interesting.

Nintendo continued to use cartridges for their 5th generation system, shunning the wisdom of all their competitors, but they weren't blind to the benefits of CDs such as its higher capacity, ability to stream music and lower production costs.

But Nintendo harboured deep concerns about CDs. Piracy worried them, and the drives were noisy, slow and power-hungry. Not to mention that they would have to make a deal with one of the CD unit makers. No, they would stay away from CDs.

To compensate, they created the Nintendo 64 Dynamic Drive, a next-generation update to their Famicom Disk System. But there were a few problems. For a start, the 64MB disks only hold a tenth of a CD's capacity, and then, they weren't much cheaper to produce than cartridges. Nevertheless, Nintendo persisted.

They announced the 64DD, claiming that a raft of developers were already producing games for the system. Alongside this, Nintendo launched RandNet, a subscription-based Internet service. Interestingly, given Nintendo's general distaste for rental services, some of the RandNet packages allowed users to purchase a 64DD for a monthly fee.

In the end, the 64DD launched with little software. Few third-party companies had anything ready and Nintendo didn't have much in the way of games to show.

To make matters worse, the rental service disks were delivered to subscribers over time, meaning that many users didn't have games to play long after the 64DD had launched. RandNet did not take off as expected either. Subscribers were mostly 64DD owners who had no option but to keep paying their monthly fee.

Eventually, RandNet was closed, the 64DD and games were offered for normal purchase and Nintendo ended its agreement with their services parent company. The need to pay a monthly fee and the lack of software are the two main reasons why the 64DD failed.

Only the *Mario Artist* titles and the *F-Zero* expansion pack really showed the potential of the add-on. But not many titles were released. The constant delays delivering developer units and unfair licence requests are cited as the reasons for this. But ultimately, most of the games were released on the Gamecube.

Manufacturer: ***Nintendo***

Country: ***Japan***

Release Date: ***December 1999***

Discontinued: ***February 2001***

Total Sales: ***15,000***

Launch Price: ***¥39,600***

The 64DD is incredibly expensive, and because it was only officially released in Japan, you need a Japanese N64 to use it.

It pops up on most auction sites, including eBay and on retro stores, but Japanese auctions generally offer cheaper prices.

Most of the titles are relatively cheap, except for the second *Doshin* game and *Japan Golf Pro Tour*.

If you have a Japanese N64, the 64DD is not a bad purchase. The *Mario Artist* titles are fun and the *F-Zero* Expansion Pack is good if you already have *F-Zero X*.

Nintendo
NINTENDO 64
メンバーID 00079839-*
EJECT
RESET
MARIO ARTIST
マリオアーティスト
ペイントスタジオ
クリエイティブツール
NUD-DMPJ-JPN
Nintendo
NINTENDO 64
64DD

NINTENDO 64
ACCESS
メンバーID 00079839-*
EJECT
Nintendo

Doshin the Giant

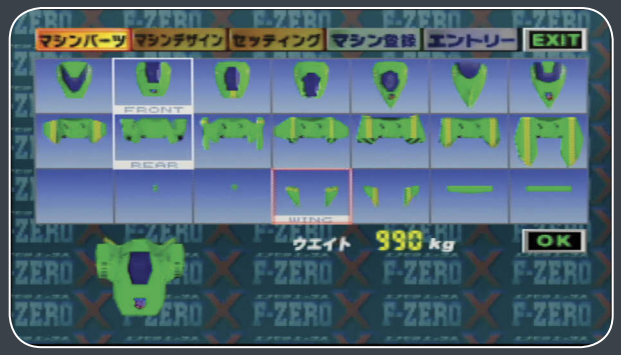
Nintendo 1999

Sim City 64

Nintendo 2000

F-Zero Expansion Kit

Nintendo 2000



Polygon Studio

Nintendo 2000

17 Bandai Wonderswan

BANDAI did not experience a great deal of success with consoles in the last couple of generations. The Playdia was targeting a market that didn't really exist and the Pippin was just a poorly conceived idea. For their next attempt, they decided to look to the handheld market instead.

This was a brave move. Nintendo ruled the roost with the Gameboy, and none of their rivals had made any kind of impact on their sales.

But Bandai had an ace up their sleeves in the form of Gunpei Yokoi, the man who had designed the original Gameboy. Despite his Virtual Boy disaster, he was still considered one of the best authorities on handheld engineering.

Gunpei's design ran on a single AA battery. Even when later models added a colour screen, it still had a decent battery life with the same power system.

The handheld also featured dual controls. Unlike the Lynx which used its dual buttons to allow left and right-handed play, the Wonderswan's buttons could be used in portrait or landscape mode.

The device was a success in Japan. It gained around 8% of the handheld market, which may not seem significant, but it was far more impressive than any of Nintendo's other competitors.

Before its release in 1999, Gunpei was tragically killed in a car accident. He never got to enjoy the success of his handheld project.

With the Wonderswan's success, Bandai managed to gain a few interesting titles, including properties like *Resident Evil* and *Final Fantasy*. They even released a special boxed *Final Fantasy* edition with a painted Wonderswan and hand strap.

Unfortunately, the release of the Gameboy Advance cemented Nintendo's grip on the market. Bandai could never quite compete, and the Wonderswan was quietly discontinued.

Manufacturer: ***Bandai***

Country: ***Japan***

Release Date: ***March 1999***

Discontinued: *2003*

Total Sales: ***3.50m***

Launch Price: ***¥4,800***

Wonderswans regularly appear on eBay and can be purchased for decent prices, especially on Japanese auction sites.

They are generally reliable and the games are quite cheap.

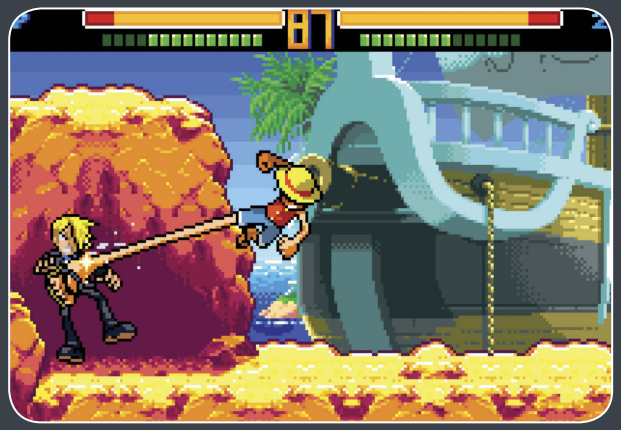
I recommend them. They have a great library of games.

WonderSwan
Color
SOUND
START
POWER
X1
X2
X3
X4
A
B

WonderSwan
Color
SOUND
START
POWER

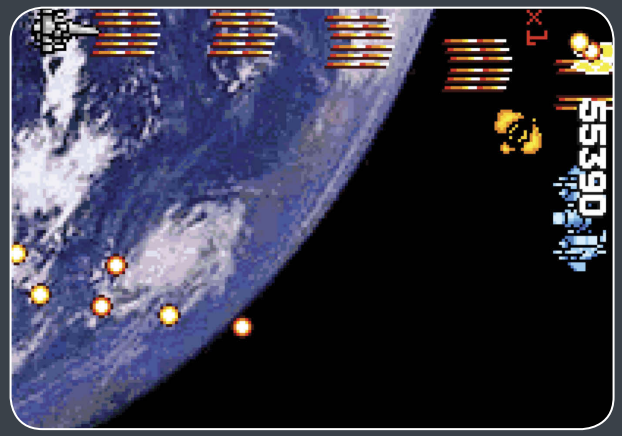
One Piece: Grand Battle Colosseum

Bandai 2002



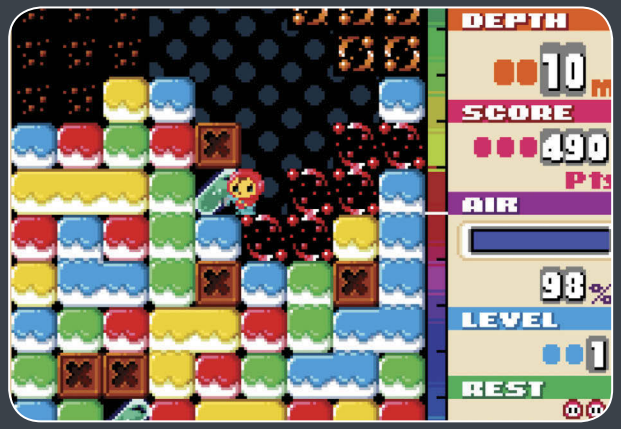
Judgement Silversword

Qute 2004



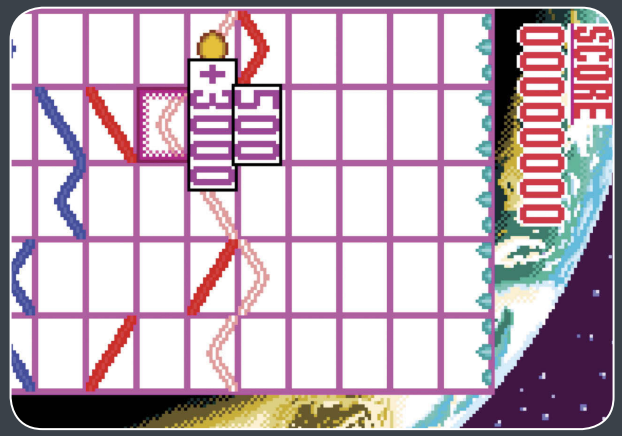
Mr Driller

Namco 1999



Gunpey

Bandai 1999



18 Casio Loopy

THE Loopy was Casio's attempt to recover from the failure of their PV-1000 console in the 3rd generation. This time, Casio didn't try to compete with the rest of the console market, but instead decided to target a 'niche' audience.

The loopy was designed for girls. Casio believed that it was an unexplored market and that, with the right features, a new customer base could be established.

To this end, they painted the new console in cheerful, bright colours, added a thermal sticker printer and created games based on dress-up and shopping.

The flaw in their plan was this: the market simply didn't exist. It quickly became apparent that 'girl gamers' were playing the same consoles as 'boy gamers', and that girls who didn't play on consoles…well, they just didn't play on consoles. A bright purple machine with a printer did little to encourage would-be gamers.

In the end, the Loopy was so unsuccessful that Casio threw in the towel after less than a month of sales. Stock was either bought back and destroyed or sold at bargain-basement prices.

The printer is plainly the main attraction of the console. Casio used their knowledge of point of sale printers to build a compact colour thermal printer. It uses a cartridge with multiple coloured films to apply different colours in combination to make the final print.

The printer mechanism is reliable, but the colour cartridges are hard to find and break easily.

All the games can be played without the printer, but it's hardly a deep experience. Printing stickers, at least, adds some value to what is—essentially, a simplistic set of dress-up games.

Optional accessories include a mouse that can be used with a couple of games, and the Magical Shop cartridge to capture external images to add to prints.

In total, if you include Magical Shop, eleven titles were released for the Loopy.

Manufacturer: ***Casio***

Country: ***Japan***

Release Date: ***October 1995***

Discontinued: ***November 1995***

Total Sales: ***< 6000***

Launch Price: ***¥30,000***

The Loopy is not easy to buy. Japanese auctions are definitely the best place to look. They are generally in good condition and usually come in their boxes, but the prices vary considerably. I bought mine for £48 when, at the same time, others in the same condition were selling for nearly £200.

It's an interesting machine and makes for a good collectable item. The print cartridges are hard to find and may require maintenance. Over time, the film inside may get stuck and need to be loosened. This is made harder by the fact that the cartridges are plastic welded.

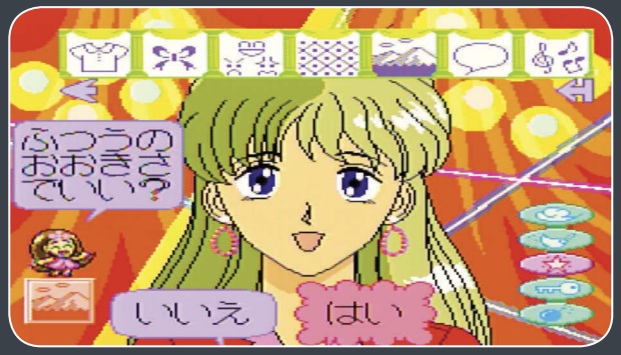
Like the console, the game prices vary drastically.

POWER
ON
OFF
RESET
POWER
EJECT
OPEN
LOOPY
CONTROL

MY SEAL COMPUTER
SV-100
OPEN
LOOPY

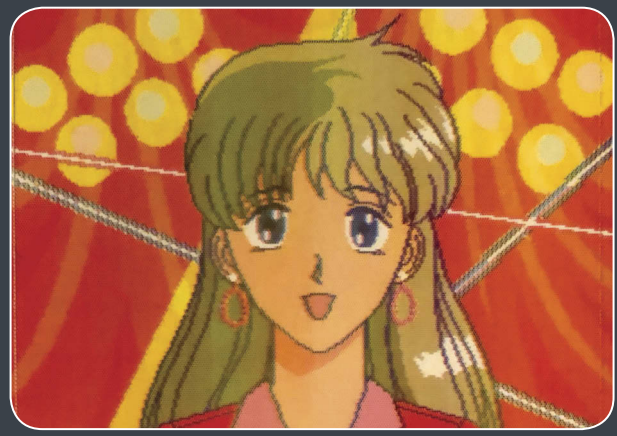
Anime Land

Casio 1995



Anime Land

Example sticker print



Dream Change: Kogane-chan no Fashion Party

Casio 1995

Dream Change: Kogane-chan no Fashion Party

Example sticker print

Afterword

Gaming in the Obscure was a passion project. Writing about my obsession was a cathartic experience. Researching it was something else. The work was fun, in its own twisted way, but it wasn't without frustration, especially when dealing with the more obscure Japanese consoles where information is truly hard to come by.

The effort was worth it, of course, and I'm happy with the result. Hopefully, you are too!

I decided late in the game to run a Kickstarter campaign to publish the book. My initial plan was simply to print copies when I could, then to donate them to libraries, which I still intend to do (although I'm clueless about how to go about doing this), but with the costs of design, I realised it would take a long time before I'd be able to get copies printed. Plus, a book about obscure consoles targets a niche market. How many people would actually want to read the book?

So, I turned to crowdfunding, which has a double benefit. Not only do I get to see if anyone wants the book, but I also get the money to print the books for those people.

Since writing this book, I've obtained many more consoles, and it pains me that they're not included here. I will almost certainly release a second revision to right this wrong. But not immediately. I want people to settle down and enjoy this one first, to point out mistakes and to talk about what's missing.

Thank you all,

Johnny Blanchard

Special Thanks

All my friends and family for supporting me and pretending to be interested when I talked about this stuff.

Jaco van der Byl and Alex Storer, who made this book readable.

Chris Wilkins, Stuart Ashen, Neil Gaiman, David Baddiel, Rufus Hound, Phil Jupitus, Julia Hardy and countless other people who caused big spikes in backers. There are too many to list here, so I'll make sure I have a few pages for this in my next book.

All the backers. Overleaf is a page for the super backers, but each and every one of you helped make this book possible – I can't thank you enough.

Super Backers

Aaron R. Schmidt
Aedanski
Aisha Taylor
Alan Arnold
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Jack Taylor
Jackal.no
Jaco van der Byl
Jacob Hinrichsen
Jacob Kalturnyk
James Arran McDonnell
James Cotham
James Gallagher
James Magauran
James Willis
Jani Ylen
Jarkko Lehtola
Jason Howat
Jason Morrell
Jason Neifeld
Jay Holyoake
Jeffrey "Jeff" Harrison
Jim Causey
Jkup Fugl
Joe lowmolly Thomas
Johan Henriksson
John Jnr Wright
John Lomax
John Robinson
John Walsh
Jon Bowen
Jon Woodall
Jose Olivenca
Julien Bertrand
Kai Engelbrecht
Katrina Bowen
Kay Bensberg
Kebrank
Keith buswell
Kevin Watkins
Kyle Bedell
Larry Anderson
Leigh Hills
Louise Mai Newberry
Mark Brown
Mark Mills
Mark Walker
Mary Buchanan
Matt D
Matt McDowall
Matthew Carolan
Matthew Stogdon
Matthias Lamm
Maurizio Pistelli
messix
Michael "Zemich" Hansen
Michael Asher
Michael Dean
Michael Gibson
Michiel Marchau
Mike Lonesky
Nick Dominguez
Nicos Eaton
Nillero
Oliver Haslinger
Paul Cawley
Paul Lee
Paul Moore
Paul Underwulde Martin
Pavouk O
Peter Curd
Phill Wade
Phoenix Donnelly
PR Taylor
R Whitmarsh
Richard Peck
Richard Robinson
Rick Reynolds
Rob 'robsoft' Uttley
Roger Isaac
Roysterini
Russell Awesome Jeff
Sam Anderson
Sam L.C.
Sean Marren
Sergio Enrique Peruyera
Shaun Harvey
Simon Todd
Simon Vargheese
Stacey Foster
Stephen "Galvatr0nlives" Sisemore
Stephen Apicco
Stephen Bell
Steve Walker
Steve Wilson Gizmo2523
Steven Bonner
Steven Edward Millward
Stuart Ashen
The Guru Fanzine
The Merrifield Family
Thierry Clavel
Thomas Henninger
Tim Berry
TomB
Tony Law
Tony Peters
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Volker Lerch
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